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## STUDENT REPORT

JOB ATTITUDES--HOW SAC PERSONNEL  
COMPARE  
WITH THE REST OF THE AIR FORCE

Major Stephen D. Bull, III 86-0400  
*"insights into tomorrow"*

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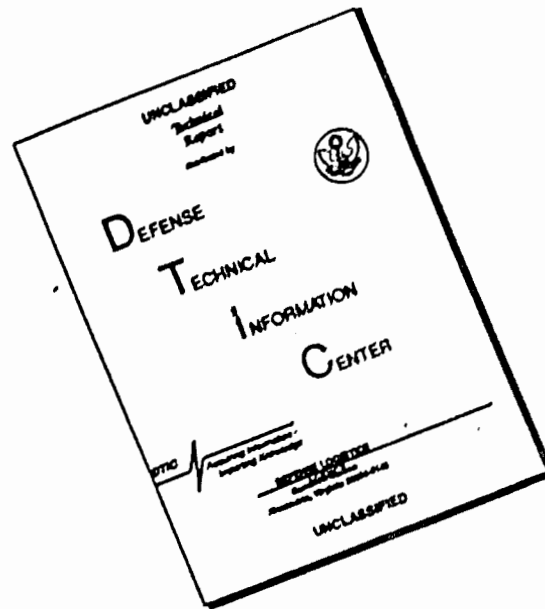
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**REPORT NUMBER** 86-0400

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THE REST OF THE AIR FORCE

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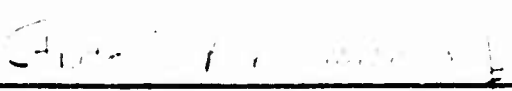
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Submitted to the faculty in partial fulfillment of  
requirements for graduation.

AIR COMMAND AND STAFF COLLEGE  
AIR UNIVERSITY  
MAXWELL AFB, AL 36112

## REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION <b>UNCLASSIFIED</b>			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT  <b>STATEMENT "A"</b> Approved for public release Distribution is unlimited.		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S)  86-0400			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION  ACSC/EDCC		6b. OFFICE SYMBOL (If applicable)		7a. NAME OF MONITORING ORGANIZATION	
6c. ADDRESS (City, State and ZIP Code)  Maxwell AFB, AL 36112-5542			7b. ADDRESS (City, State and ZIP Code)		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (If applicable)		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER	
8c. ADDRESS (City, State and ZIP Code)			10. SOURCE OF FUNDING NOS.		
11. TITLE (Include Security Classification) <b>JOB ATTITUDES--HOW SAC PERSONNEL</b>			PROGRAM ELEMENT NO.		PROJECT NO.
			TASK NO.		WORK UNIT NO.
12. PERSONAL AUTHOR(S) Bull, Stephen D., III, Major, USAF					
13a. TYPE OF REPORT		13b. TIME COVERED FROM _____ TO _____		14. DATE OF REPORT (Yr., Mo., Day)	
				15. PAGE COUNT 103	
16. SUPPLEMENTARY NOTATION ITEM 11: COMPARE WITH THE REST OF THE AIR FORCE					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB GR			
19. ABSTRACT (Continue on reverse if necessary and identify by block number)					
<p>This study compares (SAC) personnel's job attitudes with those of other Air Force personnel, highlights significant differences, and recommends how SAC can best use this information. Job attitudes were measured using the Leadership and Management Development Center's Organizational Assessment Package survey data base. SAC personnel's attitudes differed significantly from those of the data base in 54 of 63 comparisons. SAC officers and civilians were predominantly more positive than their Air Force counterparts, while SAC enlisted personnel were less positive. Study recommends SAC staff disseminate these results to commanders and continue study in the areas of enlisted personnel attitudes and job related satisfaction scores.</p>					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT UNCLASSIFIED UNLIMITED <input type="checkbox"/> SAME AS RPT <input checked="" type="checkbox"/> OTIC USERS <input type="checkbox"/>			21. ABSTRACT SECURITY CLASSIFICATION <b>UNCLASSIFIED</b>		
22a. NAME OF RESPONSIBLE INDIVIDUAL  ACSC/EDCC Maxwell AFB, AL 36112-5542			22b. TELEPHONE NUMBER (Include Area Code) (205) 293-2483		22c. OFFICE SYMBOL

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## PREFACE

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This report represents the first look in recent years at the job attitudes displayed by SAC personnel--officers, enlisted personnel, and civilians--as compared with those of their counterparts in the rest of the Air Force. This study was made possible through the diligent efforts of the Leadership and Management Development Center (LMDC) survey and analytical teams over the past eight years. During this period they have visited over 70 bases, interviewing and assisting nearly 300,000 personnel from over 13 major commands/special operating agencies. Their goal was to aid unit commanders in leading more effective organizations. Unfortunately, their service is being discontinued at the end of Fiscal Year 1986 due to budget and manpower reductions. Although there is no way to measure the contribution they have made to the Air Force, this author feels it is substantial. Those unit commanders who have benefited from their insight would surely agree. Accordingly, this research project is dedicated to the men and women in the LMDC at Maxwell AFB, Alabama.

There are several individuals who deserve special recognition for their valued advice and sincerely appreciated patience: Major Mickey R. Dansby, LMDC; Major Stephen L. Havron, Air Command & Staff College; and Lieutenant Richard L. Lamb, LMDC.

The format for this report does not follow the style prescribed by the Air Command & Staff College research handbook. At the request of Major Dansby, the author used the Publication Manual of the American Psychological Association (3rd edition) and format deviations normally used in LMDC reports. For example, the text is printed in double space and the bibliography lists only those references actually cited in this report.

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## ABOUT THE AUTHOR

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Major Bull began his career in the United States Air Force in 1973, following graduation from the United States Military Academy at West Point. He spent his first nine years as a crew member, beginning in the Pacific Theater as a C-130 navigator in the Military Airlift Command. In 1977, he volunteered for aircrew duty in the Strategic Air Command (SAC), where he served until his current assignment to the Air Command & Staff College. His SAC duty included five years as a B-52 radar navigator and three years on the Headquarters SAC staff. During his last year in SAC he served as Executive Officer, DCS/Plans. It was in this capacity that he became a project officer for a Leadership and Management Development Center organizational assessment visit. This experience rekindled his interest in leadership and organizational effectiveness.

Major Bull has concentrated on this field of study during his civilian and professional military education. While at West Point he undertook studies in operations research and systems management in pursuit of his Bachelor of Science degree. He subsequently earned a Master of Science degree in Systems Management from the University of Southern California in 1980. He has complemented this schooling with several professional military education courses: Squadron Officer School in residence; Air Command & Staff College by seminar; and the National Security Management program by correspondence.



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## EXECUTIVE SUMMARY

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REPORT NUMBER 86-0400

AUTHOR(S) MAJOR STEPHEN D. BULL, III

TITLE JOB ATTITUDES--HOW SAC PERSONNEL COMPARE WITH THE REST OF THE AIR FORCE

I. Purpose: To compare the job attitudes of Strategic Air Command (SAC) personnel with those of the rest of the Air Force, highlight significant differences, and develop recommendations on how the SAC staff can best use this information.

II. Background: Understanding job attitudes has long been recognized as a one of the keys to effectively improving organizational morale and productivity. These same attitudes can have a strong influence on an organization's reputation and its recruiting and retention programs. Comparing the attitudes of SAC personnel on a command scale with those of other personnel in the Air Force can provide a unique perspective of where SAC's organizational strengths and weaknesses lie. Until recently, the Air Force did not have a method for measuring and comparing these attitudes. However, with the advent of the Organizational Assessment Package (OAP), developed by the Leadership and Management Development Center (LMDC) at Maxwell AFB, Alabama, the Air Force gained an excellent vehicle for performing this task. Officials at SAC and LMDC recognized this opportunity and sponsored this research for that purpose.

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III. Procedure & Results: The following steps were taken to achieve the goal of this research:

1. Past Air Force and SAC studies were reviewed to identify historical attitude trends and problem areas which might be useful in evaluating the survey results.

2. Using the LMDC data base compiled from October 1981 through September 1985, the author compared demographic characteristics and attitudinal mean scores for SAC personnel and the remaining data base. The data base totaled over 108,000 personnel (18,000 SAC). Statistically significant score differences were identified using t-test analysis procedures for the 95% confidence level.

3. A general demographic comparison showed SAC respondents to be younger, less experienced and slightly less educated than the data base. SAC personnel career intentions compared favorably with those of other Air Force personnel. Only SAC enlisted personnel showed a noticeably lower percentage of those "continuing" or "likely to continue" their careers.

4. SAC personnel attitudes were significantly different from those of their Air Force counterparts in 54 of 63 score comparisons (officers--15/21, enlisted personnel--18/21, and civilians--21/21). The scores generally reflected more positive attitudes for SAC officers and civilians, particularly in their appraisal of work group productivity, job importance, and management/supervisory communications. SAC enlisted personnel indicated less favorable attitudes in nearly every comparison.

5. The magnitude of attitude score differences was less than .25 points (on Likert scale of 1 to 7) for all but 7 comparisons. These seven areas highlighted a near uniform perception that SAC jobs are less autonomous, more repetitive, and less intrinsically motivating. Despite this, SAC personnel also indicated a relatively greater desire for more easy and repetitive work and a lesser desire for more "job enrichment."

IV. Conclusions:

1. SAC officers and civilians collectively displayed more positive attitudes towards their jobs and organizations than did their Air Force counterparts. Their stronger perceptions of work group productivity, task importance,

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and the work group process (management and communications) underscored the dedication and teamwork concept that are integral to the SAC mission.

2. SAC enlisted personnel were less positive in appraising their jobs and organizations. They exhibited a definite trend of lower scores in comparison to the other Air Force enlisted personnel. Unlike the SAC officers and civilians, they were less confident in their organizational effectiveness and job importance.

3. The most significant area of specific attitude differences centered on task characteristics--less task autonomy and greater work repetition. These are not negative. They are compatible with the controlled environment of SAC's nuclear deterrence mission.

4. The lower scores for job related satisfaction for SAC officers and enlisted personnel do not support a correlation between job satisfaction and career intention. The less favorable career intentions for SAC enlisted personnel may only reflect a predominantly younger enlisted force and the Air Force-wide lower reenlistment rate for first term airmen. Of greater interest is the potential impact of family attitudes on job satisfaction. The SAC civilians scored very well in job related satisfaction. Family separation as a result of TDY or alert duty is the most noticeable difference between civilian work and military duty.

### V. Recommendations:

1. SAC Headquarters should provide the results of this survey to the field via wing commander conferences, squadron commander workshops, and the SAC NCO Leadership School.

2. SAC Headquarters should study the enlisted personnel arena. Their attitude scores indicate the greatest potential for improvement, particularly in the area of job importance and commitment to organizational goals.

3. SAC Headquarters should conduct additional study to identify the critical factor(s) impacting job related satisfaction for officers and enlisted personnel.

4. SAC Headquarters should obtain a copy of the LMDC data base for future analysis before their organization disbands at the end of Fiscal Year 1986.

## Chapter One

### INTRODUCTION

The Strategic Air Command (SAC) has long been considered the cornerstone of the United States Air Force. Organized in 1946, a full year ahead of the Air Force, its nuclear strategic mission dominated our defense budget and drove our national strategy of massive retaliation through the early 1960's (Keany, 1984). Since then, SAC has continued its nuclear deterrent role by maintaining two of the three legs in our nation's nuclear triad--the land based intercontinental ballistic missile and long range bomber aircraft. SAC's role in the Cuban Missile Crisis highlighted the power it can bring to bear in resolving international crises. More importantly, this power is not restricted to the threat of nuclear war. When the Vietnam peace negotiations stalled in December 1972, it was SAC's round-the-clock bombing that convinced the North Vietnamese to resume the peace talks in earnest (Szulc, 1978; Keany, 1984). Despite this critical role SAC plays in our national defense, the attraction of SAC duty sometimes pales beside the glamour of serving in other Air Force commands.

For many, SAC duty is synonymous with longer hours, frequent inspections, monotonous duty, regular family separation and isolated base locations (Peterson, 1971;

Wilson, 1972). This author often heard phrases like "no one volunteers for SAC" and "to err is human, to forgive is not SAC policy" long before he elected to pursue his Air Force career in SAC. If these phrases reflect a common perception of SAC duty, then it is understandable why new officers and enlisted personnel would be reluctant to volunteer for SAC duty. This point was driven home in December 1973, when General Meyer, then Commander-in-Chief of SAC, indicated to Lt Gen Roberts, AF/DP, and Lt Gen McBride, ATC/CC, that SAC would not accept new pilots unless higher caliber pilots were more evenly distributed among the commands (Dallenbach, 1985).

Prior to General Meyer's decision, pilot and navigator students selected their assignments in the order of their class standing. SAC oftentimes received the students ranked in the bottom third of their class. Concerned that these students would perceive their SAC assignments as "punishment" and develop a "failure syndrome," Lt Gen Keck, SAC/CV, successfully advocated a revised assignment system (Dallenbach, 1985).

The pilot assignment issue is symptomatic of the effects of negative rumors of SAC duty. More importantly, if these negative rumors have any merit, then one would expect the morale and job attitudes of SAC personnel to be markedly lower than those of the rest of the Air Force population. Unfortunately, no one has conducted a survey to specifically



address this issue. Until recently, the Air Force did not have a method for measuring and comparing these attitudes. However, with the advent of the Air Force Leadership and Management Development Center's (LMDC) Organizational Assessment Package (OAP), the Air Force gained this capability. Since 1978, the LMDC has administered the OAP survey to units of all commands throughout the Air Force, collecting nearly 300,000 responses (Lamb, 1985). This data base provides a vehicle for comparing the demographic characteristics and attitudes of SAC personnel--officer, enlisted, and civilian--with those of the Air Force population at large.

#### Purpose

The purpose of this report was to use the OAP data base to highlight demographic and attitudinal differences between SAC personnel and other Air Force personnel. Any differences which satisfy the 95 percent statistical confidence level were considered significant. These differences, whether positive or negative, are evaluated and provided to SAC so they can use this information in educating their unit commanders and NCO leaders on SAC personnel attitudes. This information may also prove useful in reviewing, revising and formulating SAC personnel policies.

### Organization

This report is structured in the same manner the research was conducted. Chapter Two is a literature review of background studies on SAC and Air Force personnel issues and applicable behavioral research theory. Chapter Three provides a description of the methodology used--the survey, the method of collection, who the participants were, and how the data were analyzed. Chapter Four details the statistical results of comparing the demographic and attitudinal characteristics of each population. Analysis of the results, Chapter Five, explores possible explanations for any significant differences. Chapter Six summarizes the evaluation and lists recommended actions for SAC to pursue.

## Chapter Two

### LITERATURE REVIEW

Although there are no previous studies which compare SAC personnel job attitudes with those of the Air Force population at large, there are several studies which either address specific SAC problem areas or provide a "macro" view of Air Force personnel attitudes. These studies, combined with behavioral research theory, can provide a reasonable background for understanding the GAF survey results.

#### Behavioral Research Theory

Understanding job attitudes is important because they influence our approach to work and our subsequent behavior or quality of performance. If one wants to alter a behavior, one method is to change the attitude. Because attitudes are formed on the basis of one's experiences, it is possible to modify an attitude by controlling the experiences associated with that attitude (Gray & Starke, 1984). Knowing which factors motivate high productivity then becomes important if one desires to foster a positive job attitude within his or her personnel. There are several complementary motivation theories which examine these factors.

Maslow's (1954) Hierarchy of Needs is one of the most widely known theories. He postulates man is motivated by an ascending hierarchy of needs: physiological, security, social, self-esteem and self-actualization. These needs may be satisfied concurrently or individually; however, the theory proposes the motivation to fulfill a higher level needs occurs only if the lower level needs are satisfied. McGregor's (1960) Theory X and Theory Y suggests individual motivation is also a function of commitment to organizational goals and the awards earned for achieving those goals. Vroom's (1964) Expectancy Theory further suggests a motivated individual must value the reward offered and feel the goal is achievable (Dubrin, 1978).

Herzberg's (1966) Two Factor Theory introduced the concept of job enrichment by addressing motivation as a function of job characteristics versus individual needs. He classified these characteristics as either hygiene factors, which prevent job dissatisfaction, or motivation factors, which promote job satisfaction. Hygiene factors (salary, working conditions, interpersonal relations) cannot motivate employees, nor can motivation factors (achievement, responsibility, recognition) prevent job dissatisfaction. The important point is that job satisfaction is achieved only through motivation factors, not hygiene factors. Therefore, it is possible to have a motivated, but

dissatisfied work force, as well as an unmotivated, but satisfied work force (Dubrin, 1978).

One other factor bears mentioning--stress. Negative stress can cause disruptive behavior, hurting both individual performance as well as organizational effectiveness. Several potential sources of negative stress within an organization are exorbitant work demands, role ambiguity, role conflict and underutilization of abilities (Dubrin, 1978).

These behavioral theories identify and interrelate different factors impacting motivation and job attitudes. The Air Force studies and SAC background data examine these factors in more detail.

#### Air Force Studies

There are two studies of note which address the attitudes of the Air Force population at large. The first, conducted in 1975 after the current all-volunteer force was instituted, examined the career intentions of officers and enlisted personnel. The second study, completed in 1980, examined the correlation between command of assignment and individual job satisfaction and motivation.

Pettit's (1975) study, "Leadership and Management in the All-Volunteer Air Force," provides a benchmark on the key factors affecting Air Force personnel career intentions. The strongest positive factor for officers, regardless of

their time in service, was the job itself. For officers with less than eight years of service, the second most important factor was pay and allowances. Older officers rated retirement next. Unlike the officers, the enlisted personnel did not agree on the most favorable factor. First term airmen cited training and education as the principal satisfier, while career airmen rated retirement highest. However, they both agreed on fringe benefits as the second strongest factor.

Job dissatisfiers reflected the same trend as career motivators. All officers rated family separation as the single most unfavorable factor. Junior officers ranked policies and procedures second, while senior officers were more concerned with little say in assignments. The enlisted personnel disagreed on the number one irritant--first term airmen cited policies and procedures and career airman selected family separation. First term airmen ranked family separation as the second greatest dissatisfier and career airmen ranked little say in assignments next (Pettit, 1975).

Pettit's (1975) study attempted to measure job satisfaction as a function of career intentions. Other studies have shown there is only a low-to-moderate inverse correlation between personnel turnover and job satisfaction (Baron, 1983). Therefore, career intent alone is not a good indicator of job satisfaction. Schneider (1984) argues a better measure is the combination of several variables: the

individual's self-esteem, family situation, and supervisor's behavior. This is in concert with Herzberg's (1966) Two Factor Theory (Hersey & Blanchard, 1982). Based upon these theories and the Pettit (1975) study results, one should expect to see commands which ignore job motivators (achievement, increased responsibility, recognition) and force family separation to exhibit lower job satisfaction and higher personnel turnover. A subsequent study of four major Air Force commands supported this viewpoint.

Dirnberger's (1980) study, "Organizational Assessment: Implications for Air Force Major Air Commands," demonstrated a strong, consistent relationship between job satisfaction and command of assignment. His report did not identify which commands were studied, but labeled the results by "Command 1, 2, 3, or 4." Commands 1 and 2, which scored significantly higher in job attitudes and individual motivation factors, also shared unique demographic characteristics: (a) greater percentage of females; (b) greater percentage of civilians; (c) greater percentage of personnel with more than 4 years time of service; (d) greater average time on station; and (e) over 80% of the personnel had a stable day shift. Commands 3 and 4 scored much lower and also shared some unique characteristics: (a) greater percentage of swing shift, mid shift and crew duty; (b) twice as many enlisted personnel as the other two

commands; and (c) greater personnel turnover (separation, retirement).

The difference between the highest and lowest scoring commands was significant. Command 2 scored the highest in 20 of 23 factors, and second highest in the remaining three factors. Command 4 scored lowest or next to lowest in every category except one (Dirnberger, 1980). Although pure demographic characteristic comparison is not a valid measure of job satisfaction (Schneider, 1984), Dirnberger (1980) suggested commands with more stable assignments, more civilian personnel and better supervisory climate enjoy better personnel job attitudes and higher individual motivation.

#### SAC Background Data

Three SAC studies provide valuable insight into the work environment of the SAC combat crew member. Understanding the nature of SAC duty is a prerequisite to evaluating the LMDC DAP survey results. The studies conducted by Peterson (1971), Wilson (1972), and Donnelly (1982) examined the problems confronting the SAC alert crew member.

If one were to summarize SAC duty in one word, it would be "alert." Ever since the Soviets launched Sputnik in 1957 SAC has continuously maintained a portion of its bomber and missile force on twenty-four alert status (Wilson, 1972). This means keeping aircrews, missile crews and maintenance



personnel ready to launch the fleet within a moment's notice. This mission of providing a viable nuclear deterrent against any potential aggressor has imposed significant obstacles to maintaining high morale on the crew force.

The principal morale problem associated with aircrew alert duty is frequent and prolonged family separation (Wilson, 1972). A SAC aircrew member will typically spend one week out of three away from his or her family. Although one can see their family while on alert, it does little to ease the strain. As one crew member was quoted in the AF Times, "Meeting the family at the BX or Officers' Club gets tiresome, and alert duty places the burden of raising a family on the wife" (cited in Wilson, 1972). Watching lieutenant colonels and senior majors serving alert tours only discourages the younger officers' hope of someday escaping alert duty (Wilson, 1972). This dissatisfaction with alert duty is shared by missile crew members.

Peterson's (1971) study, "Results of a Survey of SAC Missile Combat Crews," indicated SAC crew members were convinced of the importance of their mission, but were highly dissatisfied with several aspects of their jobs. These included: long hours, lack of job satisfaction, lack of prestige, the completely boring nature of missile alert duty, and the frequency of inspections and evaluations.

This last complaint is also common to aircrew duty and underscores the high stress environment of SAC duty.

The importance of the SAC mission and critical nature of dealing with nuclear weapons demands strict adherence to checklist procedures. Continuous practice leads to monotony and excessive testing creates constant stress to always succeed. Although the pressure to never make a mistake may be self-imposed by the crew member, the resulting stress is very real. This high stress can eventually lead to lower self-esteem and decreased job satisfaction (Saron, 1983).

The location of many SAC bases also has a negative effect on many SAC personnel. Called the Northern Tier, SAC maintains five bases that are in very cold climates and in sparsely populated areas. Manning these bases with volunteers presents a very difficult challenge for SAC personnel officers. Donnelly's (1982) study, "Increasing the Number of Rated Officer Volunteers for Aircrew Duty at SAC Northern Tier Bases," addressed this problem in detail. SAC offers a "reduced" three year tour to crew members who volunteer for a Northern Tier assignment. Despite this, only 50% of the positions are filled with volunteers. The remaining positions are then filled with non-volunteers from recent graduates of undergraduate flying training, accessions from other commands, and officers returning from staff duty. The strong likelihood of serving your initial

SAC tour at one these less desirable locations may influence the number of volunteers for SAC duty.

### Study Expectations

The literature review suggests several results from comparing SAC personnel attitudes with those of the Air Force community at large. The nature of SAC crew duty--frequent family separation, isolated base locations, routine tasks in a high stress environment--will cause a lower relative job satisfaction score (Baron, 1983; Schneider, 1984). However, this job dissatisfaction will not preclude a strongly motivated work force (Herzberg, 1966). SAC personnel's sense of job importance suggests a strong commitment to organizational goals and corresponding high motivation (McGregor, 1960). This commitment and motivation should result in higher scores for perceived job importance and confidence in work group effectiveness.

Birnberger's (1980) subjective comparison of command demographic characteristics and personnel attitudes suggests SAC personnel may have lower aggregate attitude scores. SAC demographic characteristics more closely approximate those of the lower scoring commands. However, this lower attitude score will not necessarily manifest itself in less favorable career intentions (Baron, 1983).

## Chapter Three

### METHOD

The information used for this study was gathered with the Leadership and Management Development Center's (LMDC) Organizational Assessment Package (OAP). This chapter describes the OAP survey, the data collection process, the subject groups evaluated and the procedures used for analyzing the data. Understanding the theory upon which the OAP was developed, the method by which it is administered, and how the data is analyzed is a prerequisite for interpreting the results. Equally important, the validity and credibility of the survey itself must be documented.

#### Instrumentation

The OAP survey was developed jointly by LMDC and the Air Force Human Resources Laboratory (AFHRL) to assist LMDC consultants in evaluating unit organizational leadership weaknesses and strengths. It also provides a data base for Air Force-wide organizational effectiveness research efforts (Short, 1985).

Given the complexity of the organizational environment and the numerous variables which can impact leadership effectiveness, the OAP was developed using the "contingency"

approach to leadership (Short, 1985). This approach contends that no single leadership style is consistently effective. Instead, it suggests that the most effective leadership style is dictated by the unique situation each leader confronts. Therefore, the "contingency" approach is ideally suited to evaluate leadership effectiveness across the broad spectrum of missions, organizational structures, and work group maturity found throughout the Air Force. The specific model used, Hendrix's (1976) "Three Component Leadership Effectiveness Model," measures both the style of leadership and the situational environment. It also measures organizational effectiveness in terms of job satisfaction, organizational climate and workers' perceived productivity (Short, 1985; Davis and Dotson, 1981).

The OAF survey (Appendix C) consists of 109 items which solicit specific demographic data and indications of the respondent's attitudes toward job characteristics, job desires, supervision, work group productivity, organization climate and various job related issues. These items are later combined to form 21 statistical factors which measure the work group input, process and output. This composite picture portrays the organization's overall effectiveness.

The credibility of the OAF has been excellent. From its initial field test in 1978 through more recent studies, the OAF validity, reliability and factor consistency have consistently been rated above average to excellent (Short,

1985; Hightower and Short, August, 1982; 1982a; 1982b). The accuracy of the factors measured by the OAP were found to remain valid even if some of the underlying assumptions in the Hendrix model were inapplicable (Debbbeck, 1980).

#### Data Collection Process

The OAP data base used in this study is compiled from anonymous individual OAP surveys administered during LMDC management consulting visits. The LMDC team only visits a unit if invited by the unit commander. They collect data through mandatory group survey sessions. Each survey is identified only by the respondent's work group code. This insures individual anonymity while still enabling the LMDC consulting team to give each supervisor feedback on his or her effectiveness as perceived by the subordinates. Approximately six weeks after the survey, the LMDC team returns to brief individual supervisors and commanders on their organization's strengths and weaknesses. These feedback sessions are tailored to address only those areas for which each supervisor or commander is responsible. The LMDC team may also recommend management action plans to improve any weak areas.

The team returns four to seven months later and administers a post-intervention (secondary) OAP survey to see if there is any positive effect from the recommended

changes. These results are then reported to the commander and individual supervisors.

The data collected from the numerous surveys are stored in a cumulative data base. The data base used for this study includes all pre-intervention (initial) surveys conducted from October 1981 through September 1985. Data collected prior to October 1981 are maintained in a separate historical data base.

#### Subjects

The two groups evaluated were SAC personnel and the remaining LMDC data base. For SAC this includes all officers, enlisted personnel, and Department of the Air Force civil service personnel. The LMDC data base represents all other Air Force personnel, including some Air Force Reserve and Air National Guard personnel. The respective sample sizes are 18,477 (SAC) and 89,707 (Air Force). A more detailed breakout is listed in Table A-1, Appendix A. The entire data base represents over 70 bases and 13 major commands/special operating agencies. The ten SAC bases surveyed include six bomber bases (Anderson, Blytheville, Ellsworth, Fairchild, Foring, Plattsburg), three missile bases (Ellsworth, Vandenberg, Whiteman), a reconnaissance base (Beale), and Headquarters SAC at Offutt AFB (Lamb, 1985).

## Procedures

The analysis of the survey results was conducted in two separate stages. Examination 1, "Analysis of Demographic Information," characterizes the sample groups and may provide some insight into any attitudinal differences highlighted in the second examination. Examination 2, "Comparison of SAC Personnel to Other Air Force Personnel," compares the attitudinal responses for each personnel category (officer, enlisted, civilian) in SAC with those of their counterparts in the remaining Air Force data base.

The number *n* shown throughout the study represents the total number of valid responses in the data base for the corresponding item or factor. The value of *n* fluctuates due to test marking errors or skipped questions. Despite this, the remaining sample size is always large enough to ensure a stable measure. Statistical analyses were performed using the appropriate procedures in SPSS\* User's Guide (1983).

### Examination 1, Analysis of Demographic Information

For this analysis, the LMDC data base was divided into two groups: those responses from SAC personnel and those from the remaining data base. SPSS\* subprogram "Crosstabs" was used to analyze the data.



## Examination 2, Comparison of SAC Personnel to Other Air Force Personnel

In this analysis, SAC attitudinal responses were compared by personnel category to the corresponding Air Force attitudinal responses. The null hypothesis assumes there are no significant attitudinal differences between SAC and the Air Force population. Two-tailed t-tests were used to determine if there were any significant differences. The level of significance for all t-tests was  $\alpha = .05$ , which equates to a 95% statistical confidence level. An F-test was used to test the assumption of equal variances. Where necessary, t-tests for unequal variance groups were used. The tabulated results of this comparison are grouped by areas of organizational functioning (detailed description is at Appendix C). These areas include:

1. Work Itself. Measures perceptions of task characteristics and environmental conditions.
2. Job Enrichment. Measures degree to which respondent finds his or her job interesting, meaningful, challenging and responsible.
3. Work Group Process. Assesses the effectiveness of supervisors and the method for accomplishing the work.
4. Work Group Output. Assesses perceptions of quality and quantity of output, pride, individual satisfaction and overall organizational climate.

## Summary

The OAP survey is designed to measure organizational leadership and management effectiveness as a function of leadership style, subordinate perception of success and the situational environment. It is based on the "contingency" approach to leadership, using Hendrix's (1976) "Three Component Leadership Effectiveness Model." The validity, reliability, and factor consistency of the OAP have been consistently tested and rated above average.

The data base used in this study was compiled through anonymous individual OAP surveys administered by the LMDC management consulting team during unit visits from October 1981 through September 1985. The LMDC team visited units only upon the request of the unit commanders. The data base contains over 108,000 responses from personnel representing over 13 major commands/special operating agencies at over 70 bases. This includes over 18,000 SAC responses from 10 SAC bases.

Chapter Four details the results of the two separate examinations, "Analysis of Demographic Information," and "Comparison of SAC Personnel to Other Air Force Personnel." The latter compared attitude scores of SAC personnel with those of their Air Force counterparts. Only those differences which exceeded the 95% confidence level were considered statistically significant.

## Chapter Four

### RESULTS

The results of the comparisons between SAC personnel and other Air Force personnel are presented in two parts. Examination 1 portrays the demographic characteristics of the SAC respondents. This analysis characterizes the respondents to the survey. The attitude survey results of Examination 2 are presented in a different format--each SAC personnel category (officer, enlisted, civilian) is compared to its Air Force counterpart in each of the four areas of organizational functions (work itself, job enrichment, work group process and work group output).

A general demographic comparison reflects that the SAC population is typically younger, less experienced and less educated than other Air Force personnel. The attitudes SAC personnel share toward their jobs, supervisors and co workers differ significantly from those of the other Air Force respondents in almost every area of analysis. However, the degree and direction of difference depends very much upon which personnel category is evaluated. SAC officers and civilians share a predominantly more favorable outlook, while the enlisted personnel are less positive.

The reader is reminded these comparisons reflect the responses in the LMDC data base only, and may not reflect the normative values for SAC and the Air Force as a whole.

#### Demographic Results

The results of Examination 1 are detailed in Tables A-1 through A-21, Appendix A. As a command, SAC is comprised of a greater percentage of enlisted personnel (72% versus 64%) and fewer civilians (15% versus 25%). Although the overall percentages of females in SAC versus the Air Force are comparable, the majority of SAC females are enlisted personnel (53%) while the majority of other Air Force females are civilians (53%). The distribution of ethnic groups is consistent between officers and enlisted personnel for both sample groups; however, SAC civilians have relatively fewer Hispanics than the other civilian population (4% versus 18%). The majority of SAC respondents are married and living with their spouses. However, proportionally fewer SAC officer and enlisted personnel spouses are employed. While a majority of SAC personnel have their performance reports written by their supervisors, there remains approximately 10% who do not know who writes their reports.

Characteristics such as age, experience, time on station, and career intent vary with each personnel category. The majority of SAC officers are between 26 and

35 years old, have more than 4 years of service, and have been in their present career fields over 36 months. A majority (85%) have less than 36 months on station. Over 50% have spent less than 12 months in their current jobs. A majority of officers are supervisors, usually of groups exceeding four people. Approximately 45% hold advanced academic degrees and over 60% are graduates of a professional military education program. While over 50% of the officers work a day shift schedule, another 30% follow a crew duty schedule or are frequently gone TDY. Only 20% of the remaining Air Force population describe their work as crew duty or frequent TDY. Nearly 44% of the SAC officers have an aeronautical rating compared to only 35% of the other Air Force officers. Over 70% of the SAC officers surveyed indicated they would definitely, or most likely, make the Air Force a career.

The majority of the SAC enlisted personnel are 17 to 25 years old. While only 41% of the other Air Force enlisted personnel have less than 4 years of service, nearly 50% of the SAC enlisted personnel fall in this category. There is a corresponding difference in job experience and time on station. A greater percentage of SAC enlisted personnel have less than 36 months in their current career fields (47% versus 41%) and less than 18 months on station (55% versus 49%). Over 46% have some college education, but no degree. A definite majority (63%) follow a normal day shift

schedule. Fewer than 35% of their supervisors use group meetings to solve problems. Only 48% of the SAC enlisted personnel expressed interest in making the Air Force a career. Over 27% indicated they intend to separate or would probably not make the Air Force a career.

The majority of SAC civilians are over 40 years old, have over 12 years of service, over 36 months in their present career fields, and over 36 months on station. While 49% have spent over 36 months in their present duty position, only 41% of the other Air Force civilians are similarly experienced. Unlike the SAC officers and enlisted personnel, a majority of civilian personnel's spouses (70%) are employed. Although the majority of SAC civilians have progressed beyond high school, only 14% have earned a college degree, compared to 25% for their other Air Force counterparts. Very few SAC civilians (33%) are supervisors and fewer still actually rate the performance of the people they supervise (21%). Nearly 88% work a day shift schedule. Fifty percent of their supervisors hold group meetings on a weekly or more frequent basis. Only 35% of their Air Force counterparts hold meetings with the same regularity. Like the SAC officers, 70% of the SAC civilians are interested in continuing their Air Force career.

### Attitudinal Differences

The attitudes expressed by SAC personnel differed significantly from those of their Air Force counterparts. The officers differed in 15 of 21 OAP factors, the enlisted personnel in 18 factors, and the civilians in all 21 factors. Table 1 depicts the results by area of organizational functioning, OAP factor, and personnel category. Areas of significant different attitudes are marked with either a plus or minus sign. A plus sign indicates the SAC personnel score was higher than that of their Air Force counterparts; a minus sign indicates a lower relative score for SAC personnel. Detailed comparisons of mean scores, standard deviations, degrees of freedom and t-test results are presented in Tables B-1 through B-3 in Appendix B. The factor numbers annotated in parentheses are provided for cross reference between the text, the tables in Appendix B, and the factor definitions in Appendix C.

Although a majority of statistical comparisons exceeded the statistical criterion for significant difference ( $\alpha = .05$ ), the magnitude of actual mean score differences was usually less than .25 of a point on a scale of 1 to 7. In fact, only 7 of the 63 factors reflected a difference greater than .25 of a point. Specific results are detailed by personnel category and functional area.

Table 1

Significantly Different Attitudes Between  
SAC Personnel and other Air Force Personnel

Function	DAP Factor (Factor number)	Off	Enl	Civ
Work Itself	Job Performance Goals (VB10)	+	-	+
	Task Characteristics (VB12)		-	+
	Task Autonomy (VB13)	-	-	+
	Work Repetition (VB14)	+	+	+
	Desired Repetitive/Easy Tasks (VB16)	+	+	+
	Job Related Training (VB23)	+		+
Job Enrichment	Skill Variety (VB00)	-	-	+
	Task Identity (VB01)	+	-	+
	Task Significance (VB02)	+	-	+
	Job Feedback (VB04)		-	+
	Need for Enrichment (VB06)	-	-	
	Job Motivation Index (VB07)	-	-	+
Work Group Process	Work Support (VB05)	-	-	-
	Management and Supervision (VB18)	+		+
	Supervisory Communications Climate (VB19)	+		+
	Organizational Communications Climate (VB20)		-	+
Work Group Output	Pride (VB11)		-	+
	Advancement/Recognition (VB17)		-	+
	Perceived Productivity (VB21)	+	-	+
	Job Related Satisfaction (VB22)	-	-	+
	General Organizational Climate (VB24)		-	+

SAC Officer Attitudes

SAC officers generally reflected more positive attitudes toward their work than the other Air Force officers. In the functional area, work itself, they considered their goals more clear, realistic and challenging (VB10). They classified their jobs as very repetitive in nature (VB14) and less autonomous, leaving little room for independent



decisions (V813). However, they also have a greater desire for jobs which are more repetitive and easy (V816). They are also more pleased with the quality of their training than are their counterparts (V823).

In the area of job enrichment, SAC officers did not feel they needed to apply as great a variety of skills in successfully completing their tasks (V800). They also felt a stronger identity with their job or mission (V801); one which they felt has a more significant impact on the lives of others (V802). They did not consider their jobs to be as intrinsically motivating (V807). Despite this, their desire for greater job enrichment is less than what their Air Force counterparts expressed (V806).

The work group process scores show SAC officers felt their supervisors generally set higher performance standards and established better work procedures than those of their Air Force counterparts (V818). They also felt they enjoy a better rapport with their supervisors--reflecting the cumulative impact good working environment, encouraged innovation, and performance rewards (V819). However, they had a less enthusiastic attitude towards the work support provided, such as inadequate tools, work space or competing additional duties (V805).

The work group output results indicate SAC officers felt more positive about their work groups' quality of work, quantity of work, and ability to perform under pressure

(V821). Their sense of pride and perceived opportunity for advancement did not differ significantly from other Air Force officers (V811, V817). Additionally, their overall job satisfaction was less, reflecting the cumulative inputs of work schedules, family attitudes, job security, and co-worker relationships (V822).

#### SAC Enlisted Personnel Attitudes

The attitudes of the SAC enlisted personnel were generally more negative than those of their counterparts. Like the officers, they characterized their jobs as more repetitive (V814) and less autonomous (V813). They also felt their job performance goals were less specific, challenging and realistic than did their enlisted counterparts (V810). Although they agreed to a fairly large extent that their tasks require individual initiative, skill variety and responsibility, their task characteristic score was significantly lower than that of their counterparts (V812). Like the officers, their desire for more repetitive and easy tasks significantly exceeded that of their counterparts (V816).

In the area of job enrichment, the SAC enlisted personnel were less enthusiastic about the intrinsic motivation potential of their tasks (V807). They felt their jobs did not demand as great a variety of skills (V800). They did not identify as strongly with their jobs (V801),

nor did they ascribe as much importance to their specific tasks in the total mission accomplishment (V802). They also did not feel they received as much clear, direct feedback on their job performance (V804). Despite this, their desire for tasks with more opportunity for individual growth, multiple disciplines, and more independence was less than what their counterparts expressed (V806).

The SAC enlisted personnel were less condemning of the work group process. Their attitudes towards the quality of management and supervision, as well as supervisory communications were neutral, like those of their Air Force counterparts (V818, V819). However, they were less enthusiastic about the work support they received (V805). They were also less positive towards the quality of organizational communications, indicating a perception of more restricted communications (V820).

The results of the work group output reflect a significant difference in all factors. The SAC enlisted personnel felt less personal pride and perceived less opportunity for achievement and recognition (V811, V817). Unlike the officers, they did not express a greater confidence in their work groups' performance capability (V821). This attitude was also reflected in their lower Job Related Satisfaction score (V822) and corresponding lower estimation of organizational pride, teamwork, and organizational communications (V824).

### SAC Civilian Attitudes

Not only did the SAC civilians differ significantly from their counterparts in every factor, their attitudes were predominantly more positive. In the first functional area, work itself, they felt their goals were more specific, clear and challenging (VB10). They expressed a higher opinion of their job characteristics--skill variety, task significance, and job feedback (VB12). Unlike the SAC officers and enlisted personnel, they considered their jobs more autonomous than did their other Air Force counterparts (VB13). Although they considered their jobs more repetitive (VB14), they also desired more repetitive, easy tasks than did the other Air Force civilians (VB16). The scores indicate SAC civilians felt more positive towards the quality of their training (VB23).

The SAC civilian attitudes reflected correspondingly positive scores in the job enrichment area. They felt their jobs require a greater variety of skills, provide a more identifiable product, and have a stronger impact on the overall unit mission (VB00, VB01, VB02). They also felt their jobs provide direct feedback on how well they are performing (VB04). Like the SAC officers and enlisted personnel, they did not desire more enriching jobs as much as their counterparts (VB06). Unlike the officers and enlisted personnel, their Job Motivation Index scores

indicated they felt their work was more intrinsically motivating than did their counterparts (V807).

The work group process scores continue to reflect the more positive attitude of the SAC civilians. Although they were significantly less satisfied with the work support received (V805), they generally felt their supervisors gave better guidance, set higher performance standards, and used better work procedures (V818). They also rated communications significantly better for both supervisors and the total organization (V819, V820).

The work group output scores show the SAC civilians took more pride in their work, perceived a greater opportunity for advancement, and felt their work groups produce better quality and quantity under pressure than did their other Air Force counterparts (V811, V817, V821). They also indicated a greater satisfaction with their job environment, reflecting the cumulative effect of co-worker relations, family attitudes and work schedule (V822). The significantly different score for general organizational climate reflected a more positive attitude by SAC civilians towards the entire organization (V824).

#### Summary

The overall review of mean scores and t-test analyses indicate SAC personnel's attitudes were significantly different in 54 of 63 individual comparisons. The scores

generally reflected more positive attitudes for SAC officers and civilian personnel and less positive attitudes for SAC enlisted personnel. The magnitude of the actual score differences was less than .25 points (on a scale of 1 to 7) for all but 7 factor score comparisons.

The next chapter compares these results with the theoretical expectations presented in Chapter Two. It also examines specific demographic and significant attitudinal differences between the SAC personnel and other Air Force personnel.

## Chapter Five

### DISCUSSION

Comparing OAP survey results between SAC and other Air Force personnel highlights several important differences. These differences support some of the theoretical expectations postulated in Chapter Two--lower Job Related Satisfaction scores and less favorable career intentions. However, the data do not support the expected lower aggregate job attitudes of SAC personnel. This chapter details the limitations of this study and then examines the theoretical expectations in light of the actual results. It also examines significant data differences in demographic characteristics and the seven OAP attitudinal factor scores where differences exceeded a value of .25 scale points.

#### Limitations and Assumptions

This study and the data base are bounded by several limitations and necessary assumptions. These include the survey and testing methodology, the suitability of prior studies, and the characteristics of the target data base.

Hypothesis testing assumes the sample used is a random representation of the whole population and that the variances within that population are equal. This study used a sample of convenience. The LMDC team conducts OAP surveys

only upon invitation of the unit commander. Despite this, the author assumes there is no "data base" slant towards either high morale or low morale units. Everyone present in the unit must take the survey. The author further assumes this does not influence the honesty of the responses.

The data base includes all surveys conducted from October 1981 through September 1985. While it is possible to sort this data chronologically to measure the impact of specific policies or programs, the scope of this study was restricted to a single comparison of SAC and the data base over the entire period. Therefore, the relative impacts of major Air Force and Department of Defense (DOD) programs during this period were assumed to be constant. This ignores the "SAC unique" benefits from increased DOD spending under the Reagan Administration for the new B-1B bombers and Peacekeeper missiles, as well as the benefits from the productivity oriented Model Installation Program.

Although an individual's attitude is influenced by both parent organization policies (e.g., Air Force, MAJCOM) and local unit policies (Alderfer, 1983), the author assumes the organizational environment created by the immediate supervisor and unit commander carries an overriding impact. This accounts for productivity and morale differences between units within the same command. Therefore, any command policies should be reviewed in the context of how



they enhance or restrict the unit commander's autonomy in creating the organizational environment he or she desires.

The scale used to measure the respondent's attitude is the Likert scale, ranging from a value of 1 to 7. The associated descriptors range from very negative to very positive. The author weighed the relative numerical score (comparison between SAC and data base), the general range of the score (negative, neutral, positive), and the statistical significance of the difference when interpreting the results.

Although mean scores differing by only .02 of a point may have proved statistically significant, the author used a minimum difference value of .25 before examining any individual factor. The LMDC staff has learned through experience that areas with measured differences of less than .25 seldom indicate genuine problems and will not likely be affected by policy or procedural changes.

#### Theoretical Expectations

The results of the attitude survey do not support all theoretical expectations postulated in Chapter Two. The results varied by personnel category, making an overall comparison between SAC and the rest of the Air Force inappropriate.

The expected lower job satisfaction attitudes were supported by the results for SAC officers and enlisted

personnel, but not for the civilians. The comparative scores for OAP Factor 822, Job Related Satisfaction, are listed in Table 2. All three SAC scores were significantly different from the data base scores.

Table 2  
OAP Factor 822, Job Related Satisfaction

Personnel Category	SAC	Other Air Force
Officer	5.26	5.38
Enlisted	4.84	4.98
Civilian	5.53	5.41

The inputs which comprise Factor 822 include co-worker relationships, family attitude towards job, work schedule, job security, and acquired valuable skills (see Appendix C). Although further analysis is required to determine which of these inputs is significant, the author suspects family attitude towards the job may be the key input. Both the enlisted personnel and officers are affected by family separation through alert duty and temporary duty (TDY) commitments, but the civilian personnel are not.

Less favorable career intentions for SAC personnel were marginally indicated by the demographic survey data. Table 2 shows the percentage of officers, enlisted personnel and civilians who indicated they will "definitely continue" or "most likely continue" their careers. Only the enlisted

personnel show a marked decrease in those desiring a career. A complete breakout of this information is listed in Table A-21, Appendix A.

Table 3  
Career Intentions

Personnel Category	SAC	Other Air Force
Officer	70.4%	73.0%
Enlisted	46.0%	55.0%
Civilian	71.5%	75.3%

The apparent discontinuity between favorable career intentions and neutral job satisfaction scores for officers is not surprising. As noted in the literature review, personnel turnover and job satisfaction normally share a low to-moderate inverse relationship. Although the lower career trend for enlisted personnel in the Air Force is mirrored in SAC, the percentage for SAC is notably lower. One possible explanation is SAC's higher percentage of first term airmen. They have 50% enlisted personnel with less than 4 years service compared with 41% for the rest of the Air Force (Table A-4, Appendix A). Because the Air Force reenlistment rate for first term airmen is lower than the rate for career airmen--60% first term versus 90% career (Brewster, 1984)--one should expect commands with higher

percentages of first term airmen to exhibit a lower total enlisted career retention rate.

SAC officers and civilians do not display aggregate poorer job attitudes as implied by Dirnberger's (1980) study. However, SAC enlisted personnel do show a marked trend of lower attitude scores across the board. Comparing the SAC population's demographic characteristics with those of the anonymous commands in the Dirnberger study, one would reasonably expect SAC to display poorer attitudes and lower job motivation scores. SAC has a lower percentage of civilians, a younger military force with less time on station, more people with irregular duty hours, and more enlisted personnel--all demographic characteristics of the commands which displayed the poorer attitudes. Despite this, a subjective analysis of the OAP survey results fails to support the supposed correlation between demographic characteristics and personnel job attitudes.

The positive or negative values assigned to specific job attitudes reflect which attitudes the organization wants to foster. For example, the OAP survey stresses job motivation potential and organizational health. The first two functional areas, work itself and job enrichment, emphasize those characteristics which Herzberg theorizes will induce individuals to perform at their highest levels. These include achievement, recognition, responsibility, and challenging problems (Hersey et al., 1982). The second two

functional areas, work group process and work group output, emphasize the organizational environment's impact on group interaction and productivity. Understanding SAC's mission and its inherent dependence on teamwork becomes important in assessing the positive or negative value of the attitude scores.

As noted in Chapter Four, the collective attitudes of SAC officers and civilians appear very positive. Not only do they significantly differ from the data base scores in 36 of 42 comparisons, these differences also reflect a higher opinion of job importance, a greater confidence in the work group, and a stronger endorsement of their supervision and organizational climate. Of particular note is the high comparative scores in Perceived Productivity (V821). This factor measures the respondent's opinion of the quality, quantity and efficiency of his work group under pressure. Because SAC works in teams--be it aircrews, missile crews, command and control teams--this esprit de corps is a critical indicator of the collective attitudes of SAC personnel. The few areas that reflect less positive scores center on the motivation potential of individual jobs, especially autonomy and repetition. This should be the expected response. The responsibility of working with nuclear weapons leaves no margin for error. SAC's checklist philosophy, which has evolved to effectively deal with this responsibility, inherently restricts autonomous decision

making and encourages repetitive, compartmentalized procedures. Therefore, the net assessment of SAC officer and civilian job attitudes in comparison to the data base must remain very favorable.

The attitudes of the SAC enlisted personnel reflect a different story. Unlike the officers and civilians, their collective attitude is more negative than their Air Force counterparts. The SAC enlisted personnel show noticeably lower scores for perceived mission importance, confidence in their work group, and faith in their supervision.

There are several possible explanations for this result. SAC has a larger percentage of airmen with less than eight years of service. According to the Fetting (1975) study, one would expect the SAC enlisted force to be more susceptible to key job irritants such as policies and procedures and family separation. As discussed earlier, family separation and close supervision are an inherent nature of SAC duty. Another contributing factor may lie in the duty functions themselves. The majority of enlisted personnel duties are in support functions, such as bomber and missile maintenance or security, instead of primary combat missions. This compounds the problem of conveying job importance and reinforcing self-esteem.

### Demographic Differences

There are three notable demographic data differences which bear mentioning: the disproportionate percentage of females among SAC enlisted personnel, the low percentage of the Hispanic minority in the SAC civilian sector, and the lower education level of SAC enlisted and civilian personnel.

Table A-2, Appendix A, highlights the disproportionate percentage of SAC females among the enlisted personnel (52% SAC versus 40% AF). This difference is a result of SAC's lower percentage of civilian personnel (15% SAC versus 25% AF). Although the overall percentage of total females in SAC is comparable to the Air Force (16% SAC versus 19% AF), the majority of the women in the Air Force are civilian employees. The appreciably fewer civilian positions available in SAC are balanced by a greater number of enlisted female positions.

The apparent disproportionate percentage of Hispanics among SAC civilians (Table A-8, Appendix A) is a function of a location more than command of assignment. The majority of Hispanics in the Air Force are civilians. SAC has a comparatively small civilian population, and very few are in the Southwest where a majority of personnel of Hispanic heritage reside (U.S. Bureau of the Census, 1984).

The Air Force population shows a five percent advantage in post high school education for enlisted personnel and a

nine percent advantage for civilian personnel. The lower education level for SAC personnel is a function of mission and age. SAC enlisted personnel are younger than their Air Force counterparts. Accordingly, they have had less time to pursue any post high school education. The type of duty reserved for the majority of SAC civilian employees does not require any post high school education.

#### Significant OAP Factor Differences

There were only seven OAP factor scores which met the statistical criterion for significant difference and also exceeded an absolute difference of .25 points. Four of these are in the work itself functional area and the other three are in the job enrichment functional area. Table 4 summarizes the factors and the magnitude of the differences.

In the work itself area, the officer scores were noticeably lower than their counterparts' scores in rating Task Autonomy (VB13) and higher in Work Repetition (VB14). These scores are not surprising given the restrictive nature of SAC duty, redundancy of checklist procedures and the education level of the respondents. Although these scores do not necessarily reflect negative attitudes, they do highlight an area for potential improvement which SAC Headquarters, unit commanders and supervisors should examine.



Table 4  
Key OAP Factor Scores

Function	Category/OAP Factor	SAC	AF	Diff
Work Itself	Officer--Task Autonomy (VB13)	4.23	4.63	-.40
	Officer--Work Repetition (VB14)	4.53	4.26	+.27
	Civilian--Work Repetition (VB14)	4.87	4.62	+.25
	Civilian--Desired Easy Tasks (VB16)	3.36	3.05	+.31
Job Enrichment	Officer--Job Motivation Index (VB07)	117.47	128.29	-10.82
	Enlisted--Job Motivation Index (VB07)	92.81	102.19	-9.38
	Civilian--Job Motivation Index (VB07)	135.02	130.68	+4.34

The complementary high score for Work Repetition (VB14) by SAC civilians underscores the contention that the repetitive checklist approach and stringent control procedures associated with the nuclear weapon mission permeate SAC's approach to all problems.

The higher SAC civilian score for Desired Repetitive and Easy Tasks (VB16) is compatible with their higher rating of Work Repetition (VB14). This relationship is also true for AF officers and enlisted personnel (see Tables B-1 and B-2, Appendix B). On the surface, this compatibility should be reinforcing and lead to higher job satisfaction. However, the Job Related Satisfaction (VB22) scores for SAC officers

and enlisted personnel are lower than those of their counterparts. Therefore, SAC population's uniform desire for more easy and repetitive tasks may indicate a totally different perception--a heavier workload. Redundant, routine and time-consuming duties driven by higher echelon controls may produce this perception.

The Job Motivation Index (VB07) factor reflects the respondent's perception of his or her job's intrinsic motivating characteristics. It is a weighted multiplication of the responses to OAP factors measuring Skill Variety, Task Identity, Task Significance, Job Feedback, Work Support and Task Autonomy. Although individual comparisons of these subordinate factor scores seldom reflect attitude differences exceeding .25 points, their combined effect results in a wide range of values. Therefore, this factor serves as a barometer of the cumulative motivating aspect of the many individual factors and does not highlight specific areas for additional study. The heaviest weighted factors used in this calculation are Task Autonomy (VB13) and Job Feedback (VB04). It is highly probable that the resulting Job Motivation Index scores are a strong reflection of the lower Task Autonomy scores already discussed.

#### Summary

The OAP survey results indicate the majority of SAC personnel attitudes differ from their Air Force

counterparts. The extent of these differences varies with the personnel category examined. The aggregate SAC officer and civilian attitudes are more positive than those of their counterparts. However, SAC enlisted personnel attitudes are less positive than those of the data base. Both SAC and other Air Force personnel reflect the same trend in job attitudes--civilians are most positive, followed by the officers and then the enlisted personnel.

While SAC personnel attitudes differ from Air Force personnel attitudes in 54 of 63 DAP factor areas, the largest differences lie in SAC's perception of less Task Autonomy, greater Work Repetition, and a lower Job Motivation Index. These scores are consistent with the controlled, checklist nature of SAC duty.

The Job Related Satisfaction scores are lower for SAC officers and enlisted personnel, most probably reflecting the impact of family separation and work schedules. Despite these scores, SAC officer career intentions are only slightly less than those of their Air Force counterparts. However, the SAC enlisted personnel career intentions are noticeably less than those of the other Air Force enlisted personnel. One reason for this may be the higher percentage of first term airmen in SAC.

Chapter Six details the conclusions of this study, recommends specific actions for Headquarters SAC, and suggests areas for further study.

## Chapter Six

### CONCLUSIONS

The LMDC OAP survey data base, collected from October 1981 through September 1985, has provided an excellent opportunity to compare SAC personnel demographic characteristics and work attitudes with those of other Air Force personnel. This comparison demonstrated SAC personnel attitudes are significantly different from those of their counterparts. The demographic data showed SAC personnel to be younger, less experienced, and slightly less educated. Their attitude scores were significantly different from those of other Air Force personnel in 54 of 63 comparisons. These comparisons led to several conclusions.

First, SAC officers and civilians collectively displayed more positive attitudes towards their jobs and organizations than did their other Air Force counterparts. Although only SAC civilians scored a higher Job Related Satisfaction score, both the SAC officers and civilians responded with higher estimates of work group productivity, job importance, and management/supervisory communications. This underscores the unit/group cohesiveness and teamwork concept which is integral to SAC operational effectiveness.

SAC enlisted personnel were less positive in appraising their jobs and organizations. Their scores were significantly lower than those of their other Air Force counterparts in 18 of 21 factor score comparisons. They did not share the other SAC personnel's confidence in group productivity, job importance and communications effectiveness.

There were only seven factor scores where SAC personnel differed from their counterparts by .25 scale points or more (on a scale of 1 to 7). These centered on the degree of Task Autonomy, Work Repetition, Desire for Easy and Repetitive Work, and the overall Job Motivation Index. SAC personnel felt their jobs allow less independent judgement, are more repetitive, and are inherently less motivating. Despite this, they all expressed relatively more desire for easy and repetitive tasks than did their counterparts. Therefore, the job characteristics appear to be compatible with the job desires.

Some of the theoretical expectations postulated about SAC attitudes were supported. The lower Job Related Satisfaction scores by SAC officer and enlisted personnel supported the Herzberg (1966) Two Factor Theory and Schneider's (1984) argument that self-esteem, family situation and supervisory behavior are critical factors in precluding job dissatisfaction. The family separation aspect of SAC duty may be the principal cause of this lower

job satisfaction. The expected strong commitment to organizational goals reflected itself in higher job importance and work group output scores for officers and civilians, but not for the enlisted personnel.

Birnberger's (1980) study predicted SAC personnel would display more negative job attitudes solely on the basis of demographic characteristics of more crew members, more enlisted personnel, fewer civilians, and less experienced personnel on station. Despite this, only the SAC enlisted personnel showed overall poorer job attitudes than their counterparts. The expected less favorable career intentions, based upon the Pettit (1975) study, were only marginally indicated by the demographic survey data. This strengthens Baron's (1983) contention that job satisfaction and career intentions have a low-to-moderate inverse relationship.

#### Recommendations

These recommendations are designed to build upon the results from this study. The overall intent is to capitalize on the data provided through this analysis.

Specific recommendations and rationale are listed below:

1. SAC Headquarters should provide the results of this study to the field via wing commander conferences, squadron commander workshops and the SAC NCO Leadership School. It is important to close the feedback loop on a command scale

to insure our commanders and first line supervisors are aware of the general SAC trends. This would achieve a twofold purpose. First, the commanders and first line supervisors need to be aware of potential job motivation problem areas within their units. Second, these leaders could provide an excellent forum for discussing methods of improving those areas in which SAC personnel showed poorer attitudes.

2. SAC Headquarters should study the enlisted personnel arena. This area shows the greatest room for improvement. SAC enlisted personnel attitudes towards the organizational effectiveness and job importance are the most disconcerting and, perhaps, the easiest to rectify. Building commitment to organizational goals can reinforce individual achievement motivations. Emphasizing teamwork can strengthen individual perceptions of job importance as well. Are the young enlisted personnel aware of their contribution to the unit mission? Are they afforded orientation rides on bombers or tankers? Are they afforded the opportunity to witness missile launch exercises?

3. SAC Headquarters should conduct additional study to identify the specific variable which most impacts Job Related Satisfaction (VB22) scores for officers and enlisted personnel. Although the family separation aspect of officer and enlisted duty is the most noticeable difference from civilian duty, there is no conclusive evidence this is the

principal cause for their lower scores. The LMDC data base contains attitude scores on all the variables which comprise the aggregate Job Related Satisfaction score. If the family attitude input proves significant, additional information is available through the LMDC Family Survey data base.

4. SAC Headquarters should obtain the entire LMDC OAP data base for future analysis. The LMDC analysis organization will be disbanded at the end of Fiscal Year 1986. However, they will transfer their data base to the Air Force Human Research Laboratory in June, 1986.



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Table A-1

Appendix A

## Number of Respondents by Personnel Category

	SAC n = 18,477 (100%)	Air Force 89,707 (100%)
Officer	2,406 (13.0%)	10,304 (11.5%)
Enlisted	13,279 (71.9%)	57,268 (63.8%)
Civilian	2,792 (15.1%)	22,135 (24.7%)

Table A-2

## Sex by Personnel Category

	SAC		Air Force	
	Male (%)	Female (%)	Male (%)	Female (%)
n =	15,510	2,905	72,495	16,889
Officer	15.6	10.0	12.4	7.6
Enlisted	75.6	52.4	69.5	39.9
Civilian	10.8	37.6	18.1	52.5

Table A-3

## Age by Personnel Category

	SAC			Air Force		
	Off (%)	Enl (%)	Civ (%)	Off (%)	Enl (%)	Civ (%)
n =	2,406	13,279	2,791	10,304	57,261	22,130
17 to 20 Yrs	0.0	17.8	0.8	0.0	12.9	1.2
21 to 25 Yrs	11.6	40.6	5.1	12.4	37.4	6.4
26 to 30 Yrs	50.2	18.2	10.1	27.6	19.8	10.6
31 to 35 Yrs	25.7	12.1	16.9	22.9	15.1	14.0
36 to 40 Yrs	18.2	7.7	12.7	19.9	10.3	14.2
41 to 45 Yrs	8.7	2.4	11.6	11.5	3.0	12.7
46 to 50 Yrs	3.2	0.5	12.5	3.6	0.8	14.2
> 50 Yrs	2.2	0.5	30.5	2.1	0.7	26.6

Appendix A

Table A-4

Time in Air Force

	SAC			Air Force		
	Off (%)	Enl (%)	Civ (%)	Off (%)	Enl (%)	Civ (%)
<u>n</u> = 2,402	2,402	13,240	2,347	10,287	57,120	19,765
< 1 Yr	3.7	9.5	5.2	3.2	6.5	5.1
1-2 Yr	6.7	14.8	4.9	5.0	11.4	5.0
2-3 Yr	8.4	13.3	5.5	7.5	12.3	5.2
3-4 Yr	7.0	12.3	5.3	7.2	11.1	4.9
4-8 Yr	22.7	19.6	12.4	21.5	20.7	11.8
8-12 Yr	17.9	10.6	14.7	15.8	13.4	12.2
> 12 Yr	33.6	19.9	52.0	39.8	24.6	55.8

Table A-5

Months in Present Career Field

	SAC			Air Force		
	Off (%)	Enl (%)	Civ (%)	Off (%)	Enl (%)	Civ (%)
<u>n</u> = 2,376	2,376	13,181	2,694	10,245	56,956	21,580
< 6 Mos	5.4	6.3	7.2	5.2	4.6	5.4
6 to 12 Mos	8.8	9.7	7.0	7.3	7.6	7.3
12 to 18 Mos	8.6	9.8	5.6	7.7	7.9	6.0
18 to 36 Mos	22.1	21.6	12.9	21.5	20.7	13.6
> 36 Mos	55.1	52.6	67.3	58.3	59.2	67.7

Table A-6  
Months on Station

	SAC			Air Force		
	Off(%)	Enl(%)	Civ(%)	Off(%)	Enl(%)	Civ(%)
<u>n</u> = 2,396		13,174	2,712	10,275	57,020	21,642
< 6 Mos	15.2	17.2	5.2	13.5	15.0	6.4
6 to 12 Mos	16.8	19.4	6.7	16.4	18.3	8.0
12 to 18 Mos	16.7	17.4	5.6	16.4	15.8	6.3
18 to 36 Mos	36.1	29.1	13.9	35.9	32.9	15.2
> 36 Mos	15.2	16.9	68.6	17.8	18.0	64.1

Table A-7  
Months in Present Position

	SAC			Air Force		
	Off(%)	Enl(%)	Civ(%)	Off(%)	Enl(%)	Civ(%)
<u>n</u> = 2,395		13,178	2,724	10,264	56,924	21,785
< 6 Mos	26.5	31.1	14.3	26.5	26.9	13.9
6 to 12 Mos	24.9	24.9	12.5	24.5	23.9	15.1
12 to 18 Mos	16.4	16.2	6.9	17.2	16.4	10.5
18 to 36 Mos	24.2	20.2	16.8	24.9	23.3	19.9
> 36 Mos	8.0	7.6	47.5	6.9	9.5	40.6

Appendix A

Table A-8

Ethnic Group

	SAC			Air Force		
	Off(%)	Enl(%)	Civ(%)	Off(%)	Enl(%)	Civ(%)
<u>n</u> = 2,398		13,159	2,733	10,248	56,888	21,807
Amer Indian/Alaskan	0.8	1.3	2.4	0.7	1.4	1.2
Asian/Pacific Is	1.5	2.3	8.8	1.4	1.9	2.0
Black	5.8	14.1	6.3	5.8	16.8	10.0
Hispanic	2.0	4.1	3.6	2.5	5.5	17.6
White	87.9	74.7	74.9	87.5	70.8	66.5
Other	2.0	3.5	4.0	2.1	3.6	2.7

Table A-9

Marital Status

	SAC			Air Force		
	Off(%)	Enl(%)	Civ(%)	Off(%)	Enl(%)	Civ(%)
<u>n</u> = 2,403		13,268	2,776	10,296	57,151	22,074
Not Married	19.3	36.7	14.8	21.6	35.3	19.1
Married	79.3	60.9	80.3	76.8	62.5	74.8
Single Parent	1.4	2.4	4.9	1.6	2.2	6.1

Table A-10

## Spouse Employment Status: SAC

	Geographically Separated			Geographically Together		
	Off(%)	Enl(%)	Civ(%)	Off(%)	Enl(%)	Civ(%)
<u>n</u> =	84	604	159	1,821	7,483	2,071
Civilian Employed	63.1	59.4	60.4	30.3	34.3	54.2
Not Employed	19.1	27.3	22.0	61.6	50.5	29.8
Military Member	17.8	13.3	17.6	8.1	15.2	16.0

Table A-11

## Spouse Employment Status: Air Force

	Geographically Separated			Geographically Together		
	Off(%)	Enl(%)	Civ(%)	Off(%)	Enl(%)	Civ(%)
<u>n</u> =	342	2,899	914	7,564	32,824	15,588
Civilian Employed	57.9	58.4	70.7	35.2	38.7	54.3
Not Employed	20.2	26.2	16.8	56.0	47.3	34.8
Military Member	21.9	15.4	12.5	8.8	14.0	10.9



Appendix A

Table A-12

Education Level

	SAC			Air Force		
	Off (%)	Enl (%)	Civ (%)	Off (%)	Enl (%)	Civ (%)
<u>n</u> = 2,397		13,216	2,735	10,279	57,070	21,855
Non HS Grad	0.0	0.9	8.2	0.0	0.7	5.0
HS Grad or GED	0.1	49.3	34.2	0.2	44.2	28.2
< 2 Yrs College	0.5	33.0	23.9	0.3	34.9	23.8
> 2 Yrs College	1.9	13.4	19.5	1.2	16.4	18.2
Bachelor's Degree	52.9	2.9	10.7	53.0	3.2	16.0
Master's Degree	35.5	0.4	3.1	37.5	0.5	7.7
Doctoral Degree	9.1	0.1	0.4	7.8	0.1	1.1

Table A-13

Highest Level Professional Military Education

	SAC			Air Force		
	Off (%)	Enl (%)	Civ (%)	Off (%)	Enl (%)	Civ (%)
<u>n</u> = 2,405		13,263	2,755	10,288	57,118	22,035
None	35.5	35.4	78.3	34.2	30.7	78.6
Phase 1 or 2	---	30.9	8.8	---	29.7	7.5
Phase 3 or 4	---	26.2	5.8	---	31.5	6.2
Senior NCO Academy	---	4.0	2.4	---	5.1	2.0
SOS	27.0	---	0.8	26.6	---	1.1
Int Service School	22.7	---	3.2	23.5	---	3.4
Sen Service school	11.5	---	0.7	12.4	---	1.4

Table A-14

## Number People Directly Supervised

	SAC			Air Force		
	Off (%)	Enl (%)	Civ (%)	Off (%)	Enl (%)	Civ (%)
<u>n</u> = 2,283		11,871	2,314	9,719	52,138	18,198
None	44.7	62.2	67.3	40.5	59.8	70.1
1 Person	6.9	7.6	4.4	7.3	7.6	2.7
2 People	6.0	6.8	3.7	6.5	7.3	2.4
3 People	9.4	6.0	3.8	7.7	5.5	2.6
4 to 5 People	13.2	8.2	7.2	13.8	7.8	5.2
6 to 8 People	8.3	4.0	4.5	10.5	4.9	4.6
9 or More People	11.5	5.1	9.1	13.7	7.1	12.4

Table A-15

## Number of People for Whom Respondent Writes OER/APR/Appraisal

	SAC			Air Force		
	Off (%)	Enl (%)	Civ (%)	Off (%)	Enl (%)	Civ (%)
<u>n</u> = 2,402		13,256	2,779	10,271	57,057	22,071
None	54.2	69.4	79.1	50.9	65.9	78.8
1 Person	9.0	8.2	3.4	9.3	8.7	1.9
2 People	7.0	6.6	3.0	7.0	6.1	1.8
3 People	8.5	5.5	3.2	6.8	5.7	1.9
4 to 5 People	10.7	7.3	5.2	11.4	6.9	3.7
6 to 8 People	7.3	2.2	2.5	8.7	2.5	3.2
9 or More People	3.3	0.8	3.6	5.9	2.2	8.7

Appendix A

Table A-16

Supervisor Writes Respondent's DER/APR/Appraisal

	SAC			Air Force		
	Off(%)	Enl(%)	Civ(%)	Off(%)	Enl(%)	Civ(%)
<u>n</u> = 2,371	13,062	2,682		10,150	56,451	21,379
Yes	79.0	74.2	83.9	77.1	69.4	77.0
No	12.0	14.4	8.1	14.9	19.7	9.8
Not Sure	9.0	11.4	8.0	8.0	10.9	13.2

Table A-17

Work Schedule

	SAC			Air Force		
	Off(%)	Enl(%)	Civ(%)	Off(%)	Enl(%)	Civ(%)
<u>n</u> = 2,378	13,143	2,715		10,203	56,703	21,650
Day Shift	51.9	63.2	87.8	61.1	59.3	88.0
Swing Shift	0.3	4.8	2.1	0.2	8.0	3.3
Mid Shift	0.0	2.7	0.6	0.0	3.1	0.8
Rotating Shifts	4.7	15.4	4.9	4.7	13.1	4.4
Irregular Schedule	11.9	10.8	3.0	12.6	12.5	2.2
Freq TDY/On-call	4.7	1.3	0.3	8.8	2.8	1.1
Crew Schedule	26.5	1.8	1.3	12.6	1.2	0.2

Table A-18

## Supervisor Holds Group Meetings

	SAC			Air Force		
	Off(%)	Enl(%)	Civ(%)	Off(%)	Enl(%)	Civ(%)
$\underline{n} =$	2,369	13,063	2,736	10,188	56,339	21,790
Never	7.7	18.4	13.2	6.3	16.0	9.6
Occasionally	24.9	32.7	29.9	22.5	34.0	35.2
Monthly	16.5	7.7	7.2	13.3	9.0	20.0
Weekly	36.8	28.1	40.8	43.6	27.2	29.3
Daily	10.7	10.7	7.0	12.5	11.6	4.1
Continuously	3.4	2.4	1.9	1.8	2.2	1.8

Table A-19

## Supervisor Holds Group Meetings to Solve Problems

	SAC			Air Force		
	Off(%)	Enl(%)	Civ(%)	Off(%)	Enl(%)	Civ(%)
$\underline{n} =$	2,359	12,999	2,712	10,128	55,961	21,474
Never	15.2	26.5	22.6	15.4	24.7	24.4
Occasionally	42.4	39.6	42.1	42.5	39.8	45.1
Half the Time	20.5	15.7	15.2	22.3	16.9	15.4
Always	21.9	18.2	20.1	19.8	18.6	15.1

Appendix A

Table A-20

Aeronautical Rating and Current Status

	SAC		Air Force	
	Off (%)	Enl (%)	Off (%)	Enl (%)
$n = 2,402$		13,207	10,137	56,048
Nonrated, Not on Aircrew	55.5	91.0	62.7	90.5
Nonrated, on Aircrew	0.6	2.1	2.8	2.0
Rated, in Crew/Operations Job	32.9	1.2	25.5	1.7
Rated, in Support Job	11.0	5.7	9.0	5.8

Table A-21

Career Intent

	SAC			Air Force		
	Off (%)	Enl (%)	Civ (%)	Off (%)	Enl (%)	Civ (%)
$n = 2,395$		13,192	2,267	10,243	56,955	19,152
Retire in 12 Mos	2.6	3.1	8.9	3.6	3.1	5.9
Career	47.6	30.5	46.9	51.8	35.9	52.0
Most Likely Career	23.8	17.5	24.6	22.2	19.1	23.3
Maybe Career	16.0	21.5	13.5	14.9	20.4	12.5
Prob No Career	6.4	16.3	3.2	4.7	13.0	3.5
Separate	3.6	11.1	2.9	2.8	8.5	2.8

Table B-1  
Comparison of OAP Factor Scores  
Between SAC and Other Officers

THE WORK ITSELF				
OAP Factor (Factor Number)	Mean	SD	df <sup>a</sup>	t
Job Performance Goals (VB10)			3519	4.63***
SAC Officers	4.60	.94		
Other Officers	4.70	.99		
Task Characteristics (VB12)			12290	.98
SAC Officers	5.36	.93		
Other Officers	5.34	.96		
Task Autonomy (VB13)			3309	-12.58***
SAC Officers	4.23	1.43		
Other Officers	4.63	1.32		
Work Repetition (VB14)			12503	8.75***
SAC Officers	4.53	1.34		
Other Officers	4.26	1.38		
Desired Repetitive/Easy Tasks (VB16)			12135	3.43**
SAC Officers	2.54	1.05		
Other Officers	2.46	1.05		
Job Related Training (VB23)			2986	3.33**
SAC Officers	4.73	1.42		
Other Officers	4.66	1.49		

<sup>a</sup>

Approximate degrees of freedom are given when t-test for groups with unequal variance is used.

\*p<.05.    \*\*p<.01.    \*\*\*p<.001

Appendix B

Table B-1 (continued)

JOB ENRICHMENT				
OAP Factor (Factor Number)	Mean	SD	df <sup>a</sup>	t
Skill Variety (VB00)			12586	-2.82**
SAC Officers	5.37	1.26		
Other Officers	5.45	1.29		
Task Identity (VB01)			12551	3.03**
SAC Officers	5.29	1.20		
Other Officers	5.20	1.22		
Task Significance (VB02)			12605	2.21*
SAC Officers	5.84	1.23		
Other Officers	5.78	1.26		
Job Feedback (VB04)			12570	-0.36
SAC Officers	4.88	1.18		
Other Officers	4.89	1.18		
Need for Enrichment (VB06)			3282	-2.36*
SAC Officers	6.05	0.91		
Other Officers	6.10	0.85		
Job Motivation Index (VB07)			11490	-6.71***
SAC Officers	117.47	65.78		
Other Officers	128.29	67.42		

<sup>a</sup>

Approximate degrees of freedom are given when t-test for groups with unequal variance is used.

\*p<.05.      \*\*p<.01.      \*\*\*p<.001

Table B-1 (continued)

Appendix B

WORK GROUP PROCESS				
GAP Factor (Factor Number)	Mean	SD	df	t
Work Support (VB05)			12120	-4.86***
SAC Officers	4.45	1.08		
Other Officers	4.58	1.09		
Management and Supervision (VB18)			11862	3.18**
SAC Officers	5.39	1.32		
Other Officers	5.29	1.35		
Supervisory Communications Climate (VB19)			11606	3.02**
SAC Officers	4.94	1.40		
Other Officers	4.84	1.42		
Organizational Communications Climate (VB20)			11719	1.33
SAC Officers	4.92	1.23		
Other Officers	4.88	1.27		
WORK GROUP OUTPUT				
Pride (VB11)			3644	0.90
SAC Officers	5.50	1.35		
Other Officers	5.47	1.40		
Advancement/Recognition (VB17)			12306	-1.64
SAC Officers	4.54	1.18		
Other Officers	4.58	1.19		
Perceived Productivity (VB21)			3585	6.24***
SAC Officers	5.89	1.02		
Other Officers	5.74	1.09		
Job Related Satisfaction (VB22)			3134	-4.51***
SAC Officers	5.26	1.13		
Other Officers	5.39	1.08		
General Organizational Climate (VB24)			3329	0.78
SAC Officers	5.22	1.21		
Other Officers	5.20	1.26		



Appendix B

Table B-2

Comparison of DAP Factor Scores  
Between SAC and Other Enlisted

-----				
THE WORK ITSELF				
-----				
DAP Factor (Factor Number)	Mean	<u>SD</u>	<u>df</u> <sup>a</sup>	<u>t</u>
-----				
Job Performance Goals (VB10)			67874	-2.64**
SAC Enlisted	4.72	.97		
Other Enlisted	4.74	.98		
Task Characteristics (VB12)			17884	-13.43***
SAC Enlisted	4.92	1.06		
Other Enlisted	5.06	.99		
Task Autonomy (VB13)			18533	-15.52***
SAC Enlisted	3.66	1.45		
Other Enlisted	3.88	1.41		
Work Repetition (VB14)			69361	9.65***
SAC Enlisted	5.24	1.37		
Other Enlisted	5.11	1.37		
Desired Repetitive/Easy Tasks (VB16)			18909	5.72***
SAC Enlisted	3.29	1.44		
Other Enlisted	3.20	1.41		
Job Related Training (VB23)			66372	-0.95
SAC Enlisted	4.46	1.58		
Other Enlisted	4.48	1.58		
-----				

a

Approximate degrees of freedom are given when t-test for groups with unequal variance is used.

\*p<.05.      \*\*p<.01.      \*\*\*p<.001

Table B-2 (continued)

JOB ENRICHMENT				
OAP Factor (Factor Number)	Mean	SD	df <sup>a</sup>	t
Skill Variety (V800)			18747	-13.63***
SAC Enlisted	4.44	1.52		
Other Enlisted	4.63	1.44		
Task Identity (V801)			18671	-10.78***
SAC Enlisted	4.94	1.32		
Other Enlisted	5.08	1.23		
Task Significance (V802)			19022	-5.04***
SAC Enlisted	5.65	1.36		
Other Officers	5.71	1.30		
Job Feedback (804)			19104	-12.45***
SAC Enlisted	4.63	1.33		
Other Enlisted	4.79	1.28		
Need for Enrichment (V806)			18366	-6.61***
SAC Enlisted	5.41	1.28		
Other Enlisted	5.49	1.23		
Job Motivation Index (V807)			17664	-14.83***
SAC Enlisted	92.81	61.16		
Other Enlisted	102.19	63.19		

a

Approximate degrees of freedom are given when t-test for groups with unequal variance is used.

\*p<.05.    \*\*p<.01.    \*\*\*p<.001

WORK GROUP PROCESS				
OAP Factor (Factor Number)	Mean	SD	df	t
Work Support (V805)			67816	-6.85***
SAC Enlisted	4.47	1.11		
Other Enlisted	4.55	1.12		
Management and Supervision (V816)			18036	-1.51
SAC Enlisted	4.88	1.60		
Other Enlisted	4.90	1.57		
Supervisory Communications Climate (V819)			66055	-1.77
SAC Enlisted	4.47	1.65		
Other Enlisted	4.52	1.63		
Organizational Communications Climate (V820)			17724	-4.64***
SAC Enlisted	4.32	1.34		
Other Enlisted	4.39	1.31		
WORK GROUP OUTPUT				
Pride (V811)			18703	-11.24***
SAC Enlisted	4.75	1.71		
Other Enlisted	4.94	1.63		
Advancement/Recognition (V817)			66891	-2.75**
SAC Enlisted	4.24	1.20		
Other Enlisted	4.27	1.20		
Perceived Productivity (V821)			18361	-2.76**
SAC Enlisted	5.44	1.27		
Other Enlisted	5.47	1.24		
Job Related Satisfaction (V822)			16369	-10.73***
SAC Enlisted	4.84	1.26		
Other Enlisted	4.98	1.21		
General Organizational Climate (V824)			17367	-10.03***
SAC Enlisted	4.28	1.42		
Other Enlisted	4.45	1.39		

Table B-3

Comparison of OAP Factor Scores  
Between SAC and Other Civilians

-----				
THE WORK ITSELF				
-----				
OAP Factor (Factor Number)	Mean	SD	df <sup>a</sup>	t
-----				
Job Performance Goals (V810)			23716	3.51***
SAC Civilians	4.92	1.01		
Other Civilians	4.84	1.00		
Task Characteristics (V812)			3399	4.46***
SAC Civilians	5.38	.89		
Other Civilians	5.30	.96		
Task Autonomy (V813)			3452	3.09**
SAC Civilians	4.66	1.30		
Other Civilians	4.57	1.36		
Work Repetition (V814)			3526	8.83***
SAC Civilians	4.87	1.37		
Other Civilians	4.62	1.44		
Desired Repetitive/Easy Tasks (V816)			3314	10.28***
SAC Civilians	3.36	1.44		
Other Civilians	3.05	1.39		
Job Related Training (V823)			22173	4.04***
SAC Civilians	4.60	1.68		
Other Civilians	4.46	1.67		
-----				

a

Approximate degrees of freedom are given when t-test for groups with unequal variance is used.

\*p<.05.      \*\*p<.01.      \*\*\*p<.001

## Appendix B

Table B-3 (continued)

JOB ENRICHMENT				
OAP Factor (Factor Number)	Mean	SD	df <sup>a</sup>	t
Skill Variety (VB00)			3531	1.98*
SAC Civilians	5.12	1.29		
Other Civilians	5.07	1.38		
Task Identity (VB01)			3540	3.36**
SAC Civilians	5.40	1.11		
Other Civilians	5.32	1.18		
Task Significance (VB02)			3550	5.07***
SAC Civilians	5.82	1.18		
Other Civilians	5.70	1.27		
Job Feedback (VB04)			3533	3.15**
SAC Civilians	5.12	1.21		
Other Civilians	5.04	1.28		
Need for Enrichment (VB06)			23646	-3.30**
SAC Civilians	5.63	1.19		
Other Civilians	5.71	1.18		
Job Motivation Index (VB07)			21899	2.87**
SAC Civilians	135.02	69.46		
Other Civilians	130.68	70.40		

<sup>a</sup>

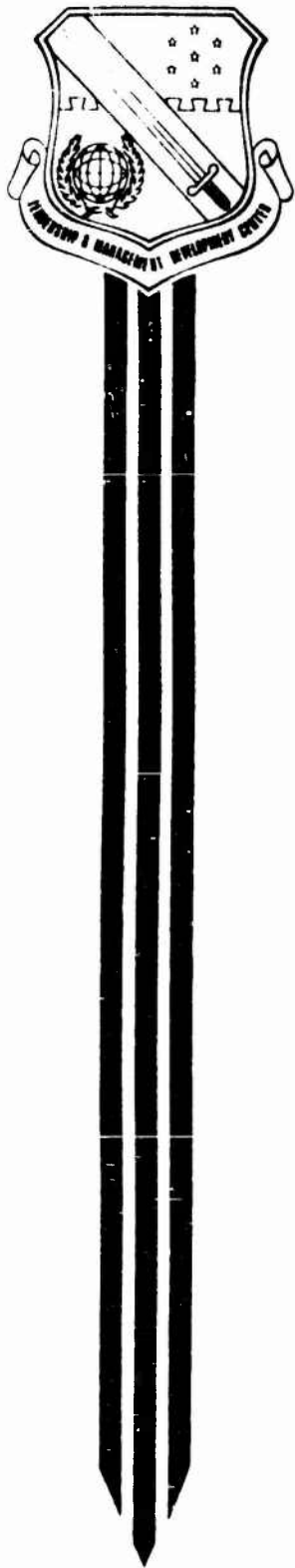
Approximate degrees of freedom are given when t-test for groups with unequal variance is used.

\*p<.05.      \*\*p<.01.      \*\*\*p<.001

Table B-3 (continued)

Appendix B

WORK GROUP PROCESS				
DAP Factor (Factor Number)	Mean	SD	df*	t
Work Support (V805)			23683	-2.69**
SAC Civilians	4.61	1.10		
Other Civilians	4.67	1.11		
Management and Supervision (V818)			3155	2.59*
SAC Civilians	5.06	1.68		
Other Civilians	4.97	1.63		
Supervisory Communications Climate (V819)			22956	3.72***
SAC Civilians	4.69	1.73		
Other Civilians	4.56	1.70		
Organizational Communications Climate (V820)			22577	5.83***
SAC Civilians	4.77	1.40		
Other Civilians	4.59	1.41		
WORK GROUP OUTPUT				
Pride (V811)			3574	4.93***
SAC Civilians	5.54	1.36		
Other Civilians	5.40	1.46		
Advancement/Recognition (V817)			3144	3.71***
SAC Civilians	3.89	1.39		
Other Civilians	3.78	1.34		
Perceived Productivity (V821)			3273	3.26**
SAC Civilians	5.71	1.22		
Other Civilians	5.63	1.26		
Job Related Satisfaction (V822)			22169	5.05***
SAC Civilians	5.53	1.06		
Other Civilians	5.41	1.09		
General Organizational Climate (V824)			22502	6.88***
SAC Civilians	4.97	1.38		
Other Civilians	4.76	1.39		



**ORGANIZATIONAL ASSESSMENT  
PACKAGE SURVEY**

**FACTORS  
AND  
VARIABLES**

**JANUARY 1986**

**LEADERSHIP AND MANAGEMENT DEVELOPMENT CENTER  
AIR UNIVERSITY  
Maxwell Air Force Base, Alabama 36112-5712**

# FACTORS AND VARIABLES OF THE ORGANIZATIONAL ASSESSMENT PACKAGE

The OAP is a 109-item survey questionnaire designed jointly by the Air Force Human Resources Laboratory and the Leadership and Management Development Center (LMDC) and is used to elicit LMDC in its missions to: (a) conduct research on Air Force systemic issues using information in the OAP database, (b) provide leadership and management training, and (c) provide management consultation service to Air Force commanders upon request.

Allowable responses to the attitudinal items on the survey range from 1 (low) to 7 (high). The attitudinal items are grouped into 25 factors that address such areas as the job itself, management and supervision, communications, and performance in the organization. Each data record consists of 7 externally coded descriptors and 24 demographic items as well as the responses to the 93 attitudinal items.

The factors measured by the OAP are grouped into a systems model to assess three aspects of a work group: input, process, and output (adapted from McGrath's model).

Input. In LMDC's adaptation of the model, input is comprised of demographics, work itself, and job enrichment.

A. Demographics. Descriptive or background information about the respondents to the OAP survey.

B. Work Itself. The work itself has to do with the task properties (technologies) and environmental conditions of the job. It assesses the patterns of characteristics members bring to the group or organization, and patterns of differentiation and integration among position and roles. The following OAP factors measure the work itself:

- 806 - Job Desires (Need for Enrichment)
- 810 - Job Performance Goals
- 812 - Task Characteristics
- 813 - Task Autonomy
- 814 - Work Repetition
- 816 - Desired Repetitive Easy Tests
- 823 - Job Related Training

Job Influences (not a statistical factor)

C. Job Enrichment. Measures the degree to which the job itself is interesting, meaningful, challenging, and responsible. The following OAP factors measure job enrichment:

- 800 - Skill Variety
- 801 - Task Identity
- 802 - Task Significance
- 804 - Job Feedback
- 806 - Need for Enrichment Index (Job Desires)
- 807 - Job Motivation Index

- 808 - QJ1 Total Score
- 809 - Job Motivation Index - Additive
- 825 - Motivation Potential Score

Work Group Process. The work group assesses the pattern of activity and interaction among the group members. The following OAP factors measure leadership and the work group process:

- 805 - Performance Barriers/Blockages (Work Support)
- 818 - Management and Supervision
- 819 - Supervisory Communications Climate
- 820 - Organizational Communications Climate
- Work Interferences (not a statistical factor)
- Supervisory Assistance (not a statistical factor)

Work Group Output. Measures task performance, group development, and effects on group members. Assesses the quantity and quality of task performance and alteration of the group's relation to the environment. Assesses changes in positions and role patterns, end in the development of norms. Assesses changes on skills and attitudes, end effects on adjustment. The following OAP factors measure the work group output:

- 811 - Pride
- 817 - Advancement/Recognition
- 821 - Work Group Effectiveness (Perceived Productivity)
- 822 - Job Related Satisfaction
- 824 - General Organizational Climate

## EXTERNALLY CODED DESCRIPTORS

Batch Number  
Julien Date of Survey  
Major Command  
Base Code  
Consultation Method  
Consultant Code  
Survey Version

(Note: These items are concatenated to each data record during EDP processing.)



# DEMOGRAPHIC ITEMS (NOT A STATISTICAL FACTOR)

Variable Number	Statement Number	Statement
-	-	Supervisor's Code
-	-	Work Group Code
-	-	Sex
-	-	Your age is
-	-	You are (officer, enlisted, GS, etc.)
-	-	Your pay grade is
-	-	Primary AFSC
-	-	Duty AFSC
(Note: The above items are on the response sheet.)		
001	-	(Not used)
002	-	(Not used)
003	1	Total years in the Air Force:
		1. Less than 1 year
		2. More than 1 year, less than 2 years
		3. More than 2 years, less than 3 years
		4. More than 3 years, less than 4 years
		5. More than 4 years, less than 6 years
		6. More than 6 years

3

Variable Number	Statement Number	Statement
004	2	Total months in present career field:
		1. Less than 1 month
		2. More than 1 month, less than 6 months
		3. More than 6 months, less than 12 months
		4. More than 12 months, less than 18 months
		5. More than 18 months, less than 24 months
		6. More than 24 months, less than 36 months
		7. More than 36 months
005	3	Total months at this station:
		1. Less than 1 month
		2. More than 1 month, less than 6 months
		3. More than 6 months, less than 12 months
		4. More than 12 months, less than 18 months
		5. More than 18 months, less than 24 months
		6. More than 24 months, less than 36 months
		7. More than 36 months
006	4	Total months in present position:
		1. Less than 1 month
		2. More than 1 month, less than 6 months
		3. More than 6 months, less than 12 months
		4. More than 12 months, less than 18 months
		5. More than 18 months, less than 24 months
		6. More than 24 months, less than 36 months
		7. More than 36 months
007	5	Your Ethnic Group is:
		1. American Indian or Alaskan Native
		2. Asian or Pacific Islander
		3. Black, not of Hispanic Origin
		4. Hispanic
		5. White, not of Hispanic Origin
		6. Other
008	11	Which of the following "best" describes your marital status?
		0. Not married.
		1. Married: Spouse is a civilian employed outside home.
		2. Married: Spouse is a civilian employed outside home - geographically separated.
		3. Married: Spouse not employed outside home.
		4. Married: Spouse not employed outside home - geographically separated.
		5. Married: Spouse is a military member.
		6. Married: Spouse is a military member - geographically separated.
		7. Single parent.

4

Variable  
Number

Statement  
Number

6

009

Your highest education level obtained is:

1. Non-high school graduate
2. High school graduate or GED
3. Less than two years college
4. Two years or more college
5. Bachelors Degree
6. Masters Degree
7. Doctoral Degree

7

Highest level of professional military education (residence or correspondence):

0. None or not applicable
1. MCO Orientation Course or USAF Supervisor Course (MCO Phase 1 or 2)
2. MCO Leadership School (MCO Phase 3)
3. MCO Academy (MCO Phase 4)
4. Senior MCO Academy (MCO Phase 5)
5. Squadron Officer School
6. Intermediate Service School (i.e., ACSC, AFSC)
7. Senior Service School (i.e., AWC, ICAF, RUC)

8

How many people do you directly supervise?

1. None
2. 1
3. 2
4. 3
5. 4 to 5
6. 6 to 8
7. 9 or more

9

For how many people do you write performance reports?

1. None
2. 1
3. 2
4. 3
5. 4 to 5
6. 6 to 8
7. 9 or more

10

Does your supervisor actually write your performance report?

1. Yes
2. No
3. Not sure

5

Variable  
Number

Statement  
Number

11

Your work requires you to work primarily:

1. Alone
2. With one or two people
3. As a small work group (3-5 people)
4. As a large work group (6 or more people)
5. Other

12

What is your usual work schedule?

1. Day shift, normally stable hours
2. Swing shift (about 1800-2400)
3. Mid shift (about 2400-0600)
4. Rotating shift schedule
5. Day or shift work with irregular/unstable hours
6. Frequent TDY/travel or frequently on-call to report to work
7. Crew schedule

13

How often does your supervisor hold group meetings?

1. Never
2. Occasionally
3. Monthly
4. Weekly
5. Daily
6. Continuously

14

How often are group meetings used to solve problems and establish goals?

1. Never
2. Occasionally
3. About half the time
4. All of the time

15

What is your aeronautical rating and current status?

1. Nonrated, not on aircrew
2. Nonrated, now on aircrew
3. Rated, in crew/operations job
4. Rated, in support job

6

Variable  
Number

Statement  
Number

16

Which of the following best describes your career or employment intentions?

1. Planning to retire in the next 12 months
2. Will continue in/with the Air Force as a career
3. Will most likely continue in/with the Air Force
4. May continue in/with the Air Force
5. Will most likely not make the Air Force a career
6. Will separate/terminate from the Air Force as soon as possible

NOTE: Variable 008, Statement 11 was added to the OAP on 19 Jan 80 and replaced variable 014 which appears on page 6. Although no longer used, Variable 014 is still shown because data collected from about 25,000 samples for this variable are still in the data base.

## FACTORS

Each 800 series factor consists of two or more variables which correspond to statements in the OAP. A mean score can be derived for each factor except 805, 807, 808, 809 and 825 by using a "straight average." The formula for computing the exceptions is indicated.

FACTOR 800 - SKILL VARIETY: Measures the degree to which a job requires a variety of different tasks or activities in carrying out the work; involves the use of a number of different skills and talents of the worker; skills required are valued by the worker.

Variable Number	Statement Number	Statement
201	17	To what extent does your job require you to do many different things, using a variety of your talents and skills?
212	29	To what extent does your job require you to use a number of complex skills?

To what extent does your job require you to do many different things, using a variety of your talents and skills?

To what extent does your job require you to use a number of complex skills?

FACTOR 801 - TASK IDENTIFY: Measures the degree to which the job requires completion of a "whole" and identifiable piece of work from beginning to end.

Variable Number	Statement Number	Statement
202	18	To what extent does your job involve doing a whole task or unit of work?
211	28	To what extent does your job provide you with a chance to finish completely the piece of work you have begun?

To what extent does your job involve doing a whole task or unit of work?

To what extent does your job provide you with a chance to finish completely the piece of work you have begun?

FACTOR B02 - TASK SIGNIFICANCE: Measures the degree to which the job has a substantial impact on the lives or work of others; the importance of the job.

Variable Number	Statement Number	Statement
203	19	To what extent is your job significant in that it affects others in some important way?
210	27	To what extent does doing your job well affect a lot of people?

FACTOR B03 (NOT USED)

FACTOR B04 - JOB FEEDBACK: Measures the degree to which carrying out the work activities required by the job results in the worker obtaining clear and direct information about job outcomes or information on good and poor performance.

Variable Number	Statement Number	Statement
272	22	To what extent are you able to determine how well you are doing your job without feedback from anyone else?
209	26	To what extent does your job provide the chance to know for yourself when you do a good job, and to be responsible for your own work?

FACTOR B05 - WORK SUPPORT: Measures the degree to which work performance is hindered by additional duties, details, inadequate tools, equipment, or work space.

Variable Number	Statement Number	Statement
206	23	To what extent do additional duties interfere with the performance of your primary job?
207	24	To what extent do you have adequate tools and equipment to accomplish your job?
208	25	To what extent is the amount of work space provided adequate?

Formula (8+206+207+208)/3

FACTOR B06 - NEED FOR ENRICHMENT INDEX (JOB DESIRES): Has to do with job related characteristics (autonomy, personal growth, use of skills, etc.) that the individual would like in a job.

Variable Number	Statement Number	Statement
		(In my job, I would like to have the characteristics described--from "not at all" to "an extremely large amount")
249	51	Opportunities to have independence in my work.
250	52	A job that is meaningful.
251	53	The opportunity for personal growth in my job.
252	54	Opportunities in my work to use my skills.
253	55	Opportunities to perform a variety of tasks.

FACTOR B07 - JOB MOTIVATION INDEX: A composite index derived from the six job characteristics that reflect the overall "motivating potential" of a job; the degree to which a job will prompt high internal work motivation on the part of job incumbents.

Index is computed using the following factors:

800	Skill variety
801	Task identity
802	Task significance
803	Performance barriers/blockages
813	Task autonomy
804	Job feedback

Formula  $(800+801+802+803)/4 + 813 + 804$

FACTOR B08 - OJL TOTAL SCORE: Assesses one's perception of motivation provided by his or her job. This factor is a variation of a scale employed by other job motivation theorists.

Score is computed using the variables in the following formula:

Formula  $(Y201+Y202+Y203+Y211+Y212+Y272+8+Y204+Y207+Y208+Y209+Y210+Y211+Y212+Y213)$

FACTOR 809 - JOB MOTIVATION INDEX ----- ADDITIVE: This factor is a variation of a scale employee by other job motivation theorists.

Index is computed using the following factors:

- 800 Skill variety
- 801 Task identity
- 802 Task significance
- 803 Performance barriers/blockages
- 804 Test autonomy
- 805 Job repetition

$$\text{Formula} = (800 + 801 + 802 + 803 + 804) \div 5$$

FACTOR 810 - JOB PERFORMANCE GOALS: Measures the extent to which job performance goals are clear, specific, realistic, understandable, and challenging.

Variable Number	Statement Number	Statement
217	34	To what extent do you know exactly what is expected of you in performing your job?
218	35	To what extent are your job performance goals difficult to accomplish?
219	36	To what extent are your job performance goals clear?
220	37	To what extent are your job performance goals specific?
221	38	To what extent are your job performance goals realistic?

FACTOR 811 - PRIDE: Measures the pride in one's work.

Variable Number	Statement Number	Statement
215	39	To what extent are you proud of your job?
216	40	To what extent does your work give you a feeling of pride?

FACTOR 812 - TASK CHARACTERISTICS: A combination of skill variety, task identity, task significance, and job feedback designed to measure several aspects of one's job.

Variable Number	Statement Number	Statement
201	17	To what extent does your job require you to do many different things, using a variety of your talents and skills?
202	18	To what extent does your job involve doing a whole task or unit of work?
203	19	To what extent is your job significant, in that it affects others in some important way?
204	20	To what extent are you able to determine how well you are doing your job without feedback from anyone else?
205	21	To what extent does your job provide the chance to know for yourself when you do a good job, and to be responsible for your own work?
206	22	To what extent does doing your job well affect a lot of people?
207	23	To what extent does your job provide you with a chance to finish completely the piece of work you have begun?
208	24	To what extent does your job require you to use a number of complex skills?

FACTOR 813 - TASK AUTONOMY: Measures the degree to which the job provides freedom to do the work as one sees fit; discretion in scheduling, decision making, and means for accomplishing a job.

Variable Number	Statement Number	Statement
209	25	To what extent does your job provide a great deal of freedom and independence in scheduling your work?
210	26	To what extent does your job provide a great deal of freedom and independence in selecting your own procedures to accomplish it?
211	27	To what extent does your job give you freedom to do your work as you see fit?
212	28	To what extent are you allowed to make the major decisions required to perform your job well?

**FACTOR B14 - WORK REPETITION:** Measures the extent to which one performs the same tasks or faces the same type of problem in his or her job on a regular basis.

Variable Number	Statement Number	Statement
226	39	To what extent do you perform the same tasks repeatedly within a short period of time?
227	40	To what extent are you faced with the same type of problem on a weekly basis?

**FACTOR B15 (NOT USED)**

**FACTOR B16 - DESIRED REPETITIVE EASY TASKS:** Measures the extent to which one desires his or her job involve repetitive tasks or tasks that are easy to accomplish.

Variable Number	Statement Number	Statement
225	56	A job in which tasks are repetitive.
228	57	A job in which tasks are relatively easy to accomplish.

**FACTOR - JOB IMPULSES (NOT A STATISTICAL FACTOR):**

Variable Number	Statement Number	Statement
215	33	To what extent do you feel accountable to your supervisor in accomplishing your job?
238	42	To what extent do co-workers in your work group maintain high standards of performance?

**FACTOR B17 - ADVANCEMENT/RECOGNITION:** Measures one's awareness of advancement and recognition, and feelings of being prepared (i.e., learning new skills for promotion).

Variable Number	Statement Number	Statement
235	51	To what extent are you aware of promotion/advancement opportunities that affect you?
239	53	To what extent do you have the opportunity to progress up your career ladder?

13

240	44	To what extent are you being prepared to accept increased responsibility?
241	55	To what extent do people who perform well receive recognition?
276	47	To what extent do you have the opportunity to learn skills which will improve your promotion potential?

**FACTOR B18 - MANAGEMENT AND SUPERVISION (A):** Measures the degree to which the worker has high performance standards and good work procedures. Measures support and guidance received, and the overall quality of supervision.

Variable Number	Statement Number	Statement
404	58	My supervisor is a good planner.
405	59	My supervisor sets high performance standards.
410	60	My supervisor encourages teamwork.
411	61	My supervisor represents the group at all times.
412	62	My supervisor establishes good work procedures.
413	63	My supervisor has made his responsibilities clear to the group.
445	64	My supervisor fully explains procedures to each group member.
416	65	My supervisor performs well under pressure.

**FACTOR - MANAGEMENT AND SUPERVISION (B): (NOT A STATISTICAL FACTOR)**

Variable Number	Statement Number	Statement
424	66	My supervisor takes time to help me when needed.
424	71	My supervisor lets me know when I am doing a poor job.
439	75	When I need technical advice, I usually go to my supervisor.

14

FACTORS 6.9 - SUPERVISOR COMMUNICATIONS CLIMATE: Measures the degree to which the worker perceives that there is good rapport with supervisors, that there is a good working environment, that innovation for task improvement is encouraged, and that rewards are based upon performance.

Variable Number	Statement Number	Statement
526	67	My supervisor asks members for their ideas on task improvements.
528	68	My supervisor explains how my job contributes to the overall mission.
431	69	My supervisor helps me set specific goals.
533	70	My supervisor lets me know when I am doing a good job.
535	72	My supervisor always helps me improve my performance.
536	73	My supervisor insures that I get job related training when needed.
537	74	My job performance has improved due to feedback received from my supervisor.
442	76	My supervisor frequently gives me feedback on how well I am doing my job.

FACTORS 8.0 - ORGANIZATIONAL COMMUNICATIONS CLIMATE: Measures the degree to which the worker perceives that there is an open communications environment in the organization, and that adequate information is provided to accomplish the job.

Variable Number	Statement Number	Statement
300	82	Ideas developed by my work group are readily accepted by management personnel above my supervisor.
301	83	My organization provides all the necessary information for me to do my job effectively.
302	84	My organization provides adequate information to my work group.
303	85	My work group is usually aware of important events and situations.
304	86	My complaints are aired satisfactorily.
309	91	The information in my organization is widely shared so that those needing it have it available.

314	96	My organization has clear-cut goals.
317	99	The goals of my organization are reasonable.
318	100	My organization provides accurate information to my work group.

FACTOR 8.21 - WORK GROUP EFFECTIVENESS: Measures one's view of the quantity, quality, and efficiency of work generated by his or her work group.

Variable Number	Statement Number	Statement
255	77	The quantity of output of your work group is very high.
260	78	The quality of output of your work group is very high.
261	79	When high priority work arises, such as short suspenses, crash programs, and schedule changes, the people in my work group do an outstanding job in handling these situations.
264	80	Your work group always gets maximum output from available resources (e.g., personnel and material).
265	81	Your work group's performance in comparison to similar work groups is very high.

FACTOR - WORK INTERFERENCES (NOT A STATISTICAL FACTOR): Identifies things that impede an individual's job performance.

Variable Number	Statement Number	Statement
277	48	To what extent do you have the necessary supplies to accomplish your job?
278	49	To what extent do details (task not covered by primary or additional duty descriptions) interfere with the performance of your primary job?
279	50	To what extent does a bottleneck in your organization seriously affect the flow of work either to or from your group?

FACTOR 822 - JOB RELATED SATISFACTION: Measures the degree to which the worker is generally satisfied with factors surrounding the job.

Variable Number	Statement Number	Statement
705	101	Feeling of Helpfulness The chance to help people and improve their welfare through the performance of my job. The importance of my job performance to the welfare of others.
709	102	Co-worker Relationships My amount of effort compared to the effort of my co-workers, the extent to which my co-workers share the load, and the spirit of teamwork which exists among my co-workers.
710	103	Family Attitude Toward Job The recognition and pride my family has in the work I do.
717	104	Work Schedule My work schedule; flexibility and regularity of my work schedule; the number of hours I work per week.
718	107	Job Security
719	108	Acquired Valuable Skills The chance to acquire valuable skills in my job which prepare me for future opportunities.
723	109	My Job as a Whole

FACTOR 823 - JOB RELATED TRAINING: Measures the extent to which one is satisfied with on-the-job and technical training received.

Variable Number	Statement Number	Statement
711	104	On-the-Job Training (OJT) The OJT instructional methods and instructors' competence.
712	105	Technical Training (Other than OJT) The technical training I have received to perform my current job.

FACTOR 824 - GENERAL ORGANIZATIONAL CLIMATE: Measures the individual's perception of his or her organizational environment as a whole (i.e. spirit of teamwork, communications, organizational pride, etc.).

Variable Number	Statement Number	Statement
305	87	My organization is very interested in the attitudes of the group members toward their jobs.
306	88	My organization has a very strong interest in the welfare of its people.
307	89	I am very proud to work for this organization.
308	90	I feel responsible to my organization in accomplishing its mission.
310	92	Personnel in my unit are recognized for outstanding performance.
311	93	I am usually given the opportunity to show or demonstrate my work to others.
312	94	There is a high spirit of teamwork among my co-workers.
313	95	There is outstanding cooperation between work groups of my organization.
315	97	I feel motivated to contribute my best efforts to the mission of my organization.
316	98	My organization rewards individuals based on performance.

FACTOR 825 - MOTIVATION POTENTIAL SCORE: This factor is another version of a scale employed by other job motivation theorists. The score ranges between 1 and 343 with 109 being the Air Force average. Low scores indicate a poorly motivating job. Score is computed using the following factors:

800	Skill variety
801	Task identity
802	Task significance
804	Job feedback
813	Task autonomy

Formula:  $(800 \cdot 801 \cdot 802 / 3) \cdot 813 \cdot 804$



# VARIABLES

Variable Number	Factor	Statement Number
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201	800/812	17	To what extent does your job require you to do many different things, using a variety of your talents and skills?
202	801/812	18	To what extent does your job involve doing a whole lot or unit of work?
203	802/812	19	To what extent is your job significant, in that it affects others in some important way?
204 & 205	--	--	(Not used)
206	805	23	To what extent do additional details interfere with the performance of your primary job?
207	805	24	To what extent do you have adequate tools and equipment to accomplish your job?
208	805	25	To what extent is the amount of work space provided adequate?
209	804/812	26	To what extent does your job provide the chance to know for yourself when you do a good job, and to be responsible for your own work?
210	802/812	27	To what extent does doing your job well affect a lot of people?
211	801/812	28	To what extent does your job provide you with a chance to finish completely the piece of work you have begun?
212	800/812	29	To what extent does your job require you to use a number of complex skills?

Variable Number	Factor	Statement Number
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213	811	30	To what extent does your job give you freedom to do your work as you see fit?
214	813	31	To what extent are you allowed to make the major decisions required to perform your job well?
215	811	32	To what extent are you proud of your job?
216*	--	33	To what extent do you feel accountable to your supervisor in accomplishing your job?
217	810	34	To what extent do you know exactly what is expected of you in performing your job?
218	810	35	To what extent are your job performance goals difficult to accomplish?
219 & 220	--	--	(Not used)
221	810	38	To what extent are your job performance goals realistic?
222-225	--	--	(Not used)
226	814	39	To what extent do you perform the same tasks repeatedly within a short period of time?
227	814	40	To what extent are you faced with the same type of problem on a weekly basis?

\* This variable is an element of "job influences" (not a statistical factor).

Variable Number	Factor	Statement Number
228-233	--	--
234	817	41
235-237	--	--
238*	--	42
239	817	43
240	817	44
241	817	45
242-248	--	--
249	806	51
250	905	52
251	806	53
252	806	54
253	806	55
254	--	--
255	416	56

Variable Number	Factor	Statement Number
256 & 257	--	--
258	816	57
259	821	77
260	821	78
261	821	79
262 & 263	--	--
264	821	80
265	821	81
266-269	--	--
270	813	20
271	813	21
272	804/812	22

# Statement

(Not used)

A job in which tasks are relatively easy to accomplish.

The quantity of output of your work group is very high.

The quality of output of your work group is very high.

When high priority work arises, such as short responses, crash programs, and schedule changes, the people in my work group do an outstanding job in handling these situations.

(Not used)

Your work group always gets maximum output from available resources (e.g., personnel and materials).

Your work group's performance in comparison to similar work groups is very high.

(Not used)

To what extent does your job provide a great deal of freedom and independence in scheduling your work?

To what extent does your job provide a great deal of freedom and independence in selecting your own procedures to accomplish it?

To what extent are you able to determine how well you are doing your job without feedback from anyone else?

# Statement

(Not used)

To what extent are you aware of promotion/advancement opportunities that affect you?

(Not used)

To what extent do co-workers in your work group maintain high standards of performance?

To what extent do you have the opportunity to progress up your career ladder?

To what extent are you being prepared to accept increased responsibility?

To what extent do people who perform well receive recognition?

(Not used)

Opportunities to have independence in my work?

A job that is meaningful.

The opportunity for personal growth in my job.

Opportunities in my work to use my skills.

Opportunities to perform a variety of tasks.

(Not used)

A job in which tasks are repetitive.

\* This variable is an element of "job influences" (not a statistical factor).

Variable Number	Factor	Statement Number
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273	810	36	To what extent are your job performance goals clear?
274	810	37	To what extent are your job performance goals specific?
275	811	46	To what extent does your work give you a feeling of pride?
276	817	47	To what extent do you have the opportunity to learn skills which will improve your promotion potential?
277**	--	49	To what extent do you have the necessary supplies to accomplish your job?
278**	--	49	To what extent do details (task not covered by primary or additional duty descriptions) interfere with the performance of your primary job?
279**	--	50	To what extent does a bottleneck in your organization seriously affect the flow of work either to or from your group?
280-299	--	--	(Not used)
300	820	82	Ideas developed by my work group are readily accepted by management personnel above my supervisor.
301	820	83	My organization provides all the necessary information for me to do my job effectively.
302	820	84	My organization provides adequate information to my work group.

\*\* These variables are elements of "work interferences" (not a statistical factor).

Variable Number	Factor	Statement Number
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303	820	85	My work group is usually aware of important events and situations.
304	820	86	My complaints are aired satisfactorily.
305	824	87	My organization is very interested in the attitudes of the group members toward their jobs.
306	824	88	My organization has a very strong interest in the welfare of its people.
307	824	89	I am very proud to work for this organization.
308	824	90	I feel responsible to my organization in accomplishing its mission.
309	820	91	The information in my organization is widely shared so that those needing it have it available.
310	824	92	Personnel in my unit are recognized for outstanding performance.
311	824	93	I am usually given the opportunity to show or demonstrate my work to others.
312	824	94	There is a high spirit of teamwork among my co-workers.
313	824	95	There is outstanding cooperation between work groups of my organization.

Variable Number	Factor	Statement Number
316	820	96
315	824	97
316	824	98
317	820	99
318	820	100
319-403	--	--
404	818	58
405	818	59
406-409	--	--
410	818	60
411	818	61
412	818	62
413	818	63
414 & 415	--	--
416	818	65
417-423	--	--
424-428	--	66
429	--	--

\*\*\* This variable is an element of "supervisory assistance" (not a statistical factor).

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Variable Number	Factor	Statement Number
426	819	67
427	--	--
428	819	68
429 & 430	--	--
431	819	69
432	--	--
433	819	70
434-438	--	71
439	819	72
440	819	73
441	819	74
442	--	--
443-447	--	75
448 & 449	--	--
450	819	76
451 & 452	--	--
453	818	64
454-458	--	--

\*\*\* These variables are elements of "supervisory assistance" (not a statistical factor).

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Variable Number	Factor	Statement Number	Statement
705	822	101	Feeling of Helplessness The chance to help people and improve their welfare through the performance of my job. The importance of my job performance to the welfare of others.
706-708	--	--	(Not used)
709	822	102	Co-worker Relationships My amount of effort compared to the effort of my co-workers, the extent to which my co-workers share the load, and the spirit of teamwork which exists among my co-workers.
710	822	103	Family Attitude Toward Job The recognition and the pride my family has in the work I do.
711	823	104	On-the-Job Training (OJT) The OJT instructional methods and instructors' competence.
712	823	105	Technical Training (Other than OJT) The technical training I have received to perform my current job.
713-716	--	--	(Not used)
717	822	106	Work Schedule My work schedule; flexibility and regularity of my work schedule; the number of hours I work per week.
718	822	107	Job Security
719	822	108	Acquired Valuable Skills The chance to acquire valuable skills in my job which prepare me for future opportunities.
720-722	--	--	(Not used)
723	823	109	My Job as a Whole
724-999	--	--	(Not used)